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Using the Orders with Freedom

By Aymar Embury, II

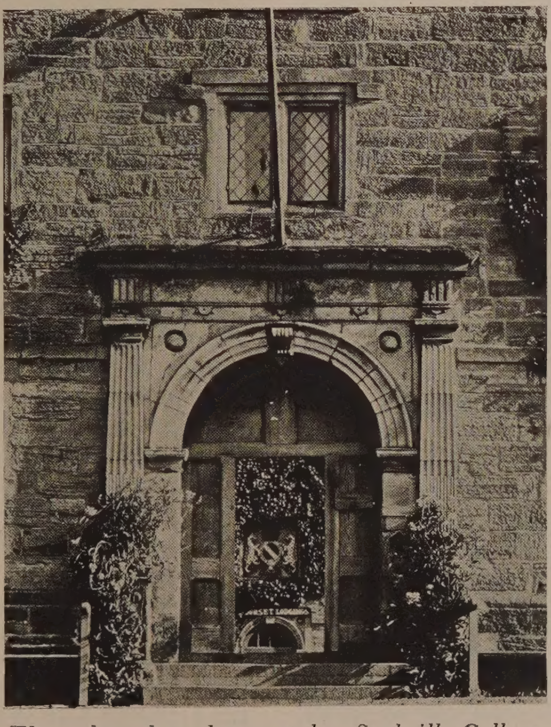
THE modern architectural school which dominates western Europe to-day, and is by no means negligible in the United States, is marked by a careful and complete avoidance of all traditional architectural motives, and especially of the classic orders. Whatever we may think of the buildings constructed in accordance with the principles (or rather negations) by which this school is governed, it is impossible to ignore the depth of feeling which has caused so many architects to throw overboard all that they have learned, all that has been done in the past, because of their deep contempt for the endless and exact repetition of historic forms into which architecture has fallen.

It is easy to see why this insurgent movement in Europe has shown greater strength than in the United States; there the type of building has not varied for four or five centuries; there are no skyscrapers and few suburban houses, the sorts of buildings with which our architects have been chiefly concerned; and the European architect does not seem to have concerned himself very greatly about a third sort, the factory buildings, with which our men have achieved a very considerable amount of success. The work of the European architects has therefore been confined within much narrower limits than that of the American, and one can understand how the Europeans, confronted only with problems already completely solved a thousand times in the same way, should seek, in a complete change of treatment, that opportunity for progress that the subject itself does not give.

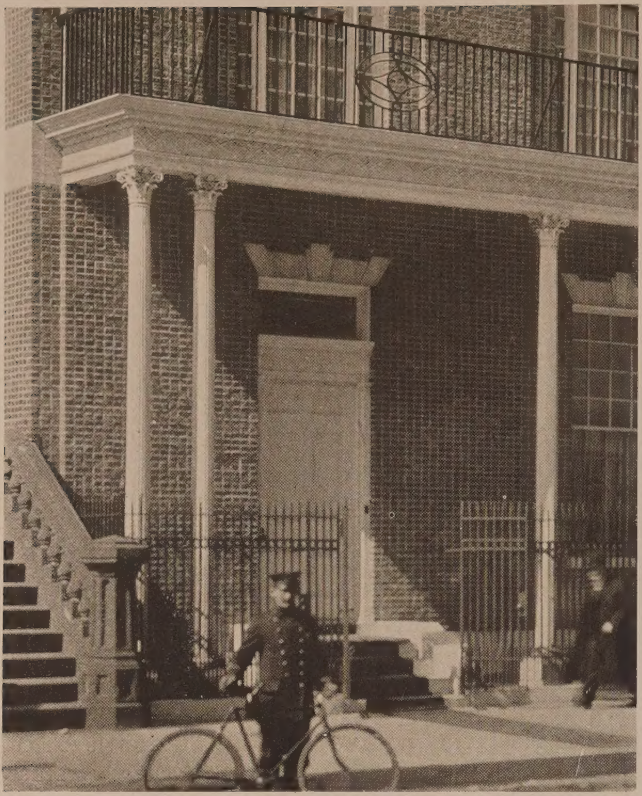
Here we have not yet fully exhausted the possibilities of the historic styles, since, in the first place, we have had a much greater diversity of buildings to design, and in the second, have at hand no plethora of historic examples. It might also be added that for the most part the Europeans have looked only in their own countries for precedent, with occasional glances toward classic antiquity and Renaissance Italy; here we have borrowed, copied, imitated, from every country, including not only Europe, but north Africa, Persia, and Japan; so that our eclectic architecture, ridiculous as much of it has been, has at least never, or rarely, lost the flavor of novelty through repetition.

There are, however, signs that this condition will not long continue; the better architects and even the public are getting fed up on copies, and demanding architecture instead, and although it is still considered a very high form of praise to say that a certain building is a perfect example of "Italian" or "Colonial," the fact that the magnificent architectural quality of the Shelton Hotel was instantly and fully appreciated without inquiry as to whether it is true to any traditional style, is pretty conclusive proof that we are primarily sensitive to excellence of design and only secondarily to tradition.

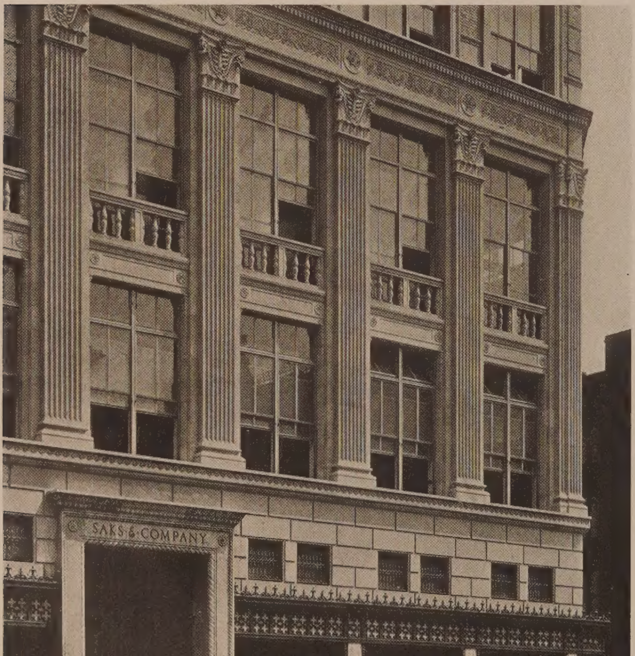
Now if we here in America finally find ourselves obliged to cast away all tradition, as the Europeans have done, and begin to develop the decorative side of architectural design at the point where the Egyptians found it some four thousand years ago, we will have only our own stupidity to blame. Great architectural styles are formed neither by discarding nor by preserving traditional motives, but by using them



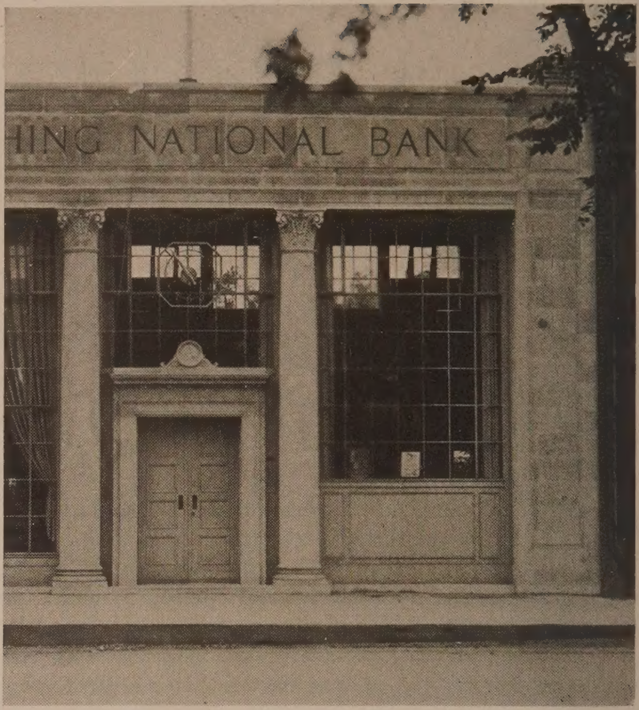
The order adapted to a style. Sackville College, Sussex—about 1607.



In the old Colony Club, New York, McKim, Mead & White did not think it necessary to follow Palladio.



An order adding apparent strength to light piers. Saks Building, New York. Starrett & Van Vleck, Architects.



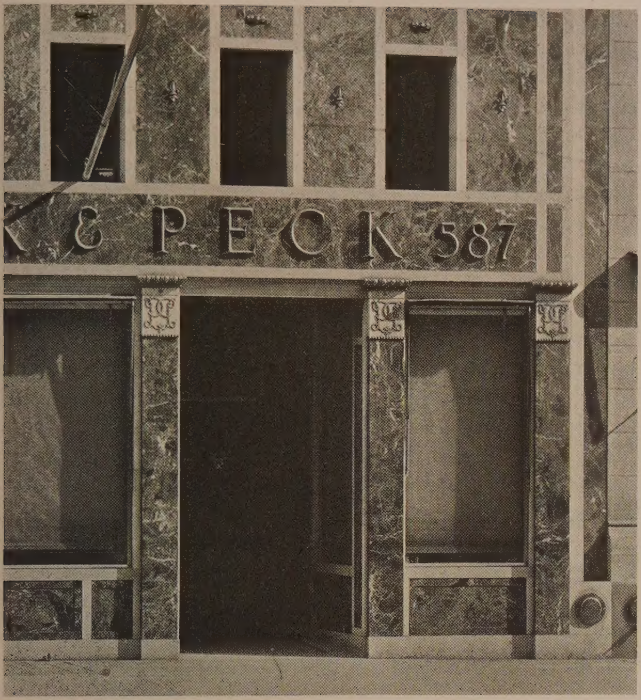
An order with the entablature suggestive rather than literal. W. W. Knowles, Architect.

as stepping-stones toward new forms; and of these traditional motives the one most useful, and of them all the one used with the least intelligence, is that combination of columns and entablature known as the "orders," although the differences between the five orders are so entirely a matter of minor decorative details that they can be considered as a single architectural motive. For twenty-three or twenty-four hundred years this has been the most important of all traditional forms, persisting in a confused fashion even through the Gothic period, at first a structural, later a decorative feature, but always the easiest way of expressing post-and-lintel construction in architectural terms.

That the motive satisfies an instinctive æsthetic need of the white race, is sufficiently proven by its use wherever dignity and nobility of purpose is especially to be stressed, from the entrance doorway of an humble cottage to the portico of the capitol of a nation. Nor has the incessant repetition of the motive dulled us to its inherent fineness; the great colonnade of the Lincoln Memorial thrills us by its beauty and produces in us that sense of exaltation which a memorial to so great a man should inspire, despite our familiarity with the motive employed.

This is because the motive is rightly used; on the other hand, what can be stupider than a New York street with house after house decorated by a doorway in the correct proportions as laid down by Vignola, regardless of scale, regardless of material, regardless of the apparent load it is to support.

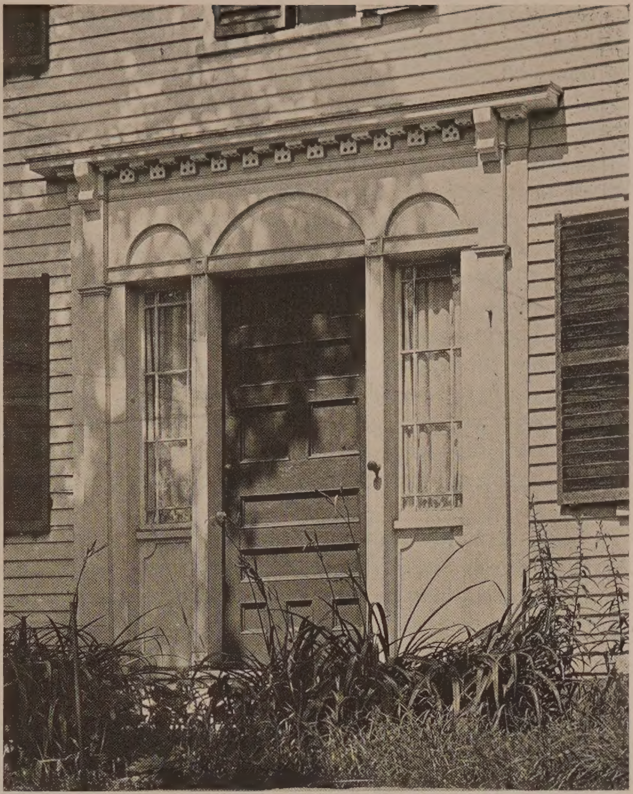
Architecture can never be crystallized into a formula, so that when Vitruvius, in Roman times, and



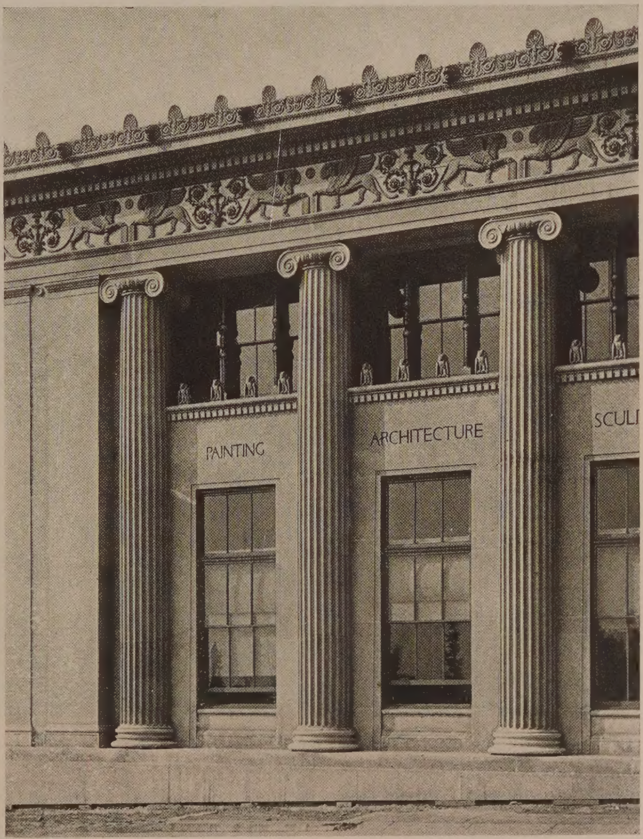
Modernistic expression of the order's function. G. A. & H. Boehm, Architects.

the Italians of the Renaissance—Palladio, Vignola, and Scamozzi—laid down sets of rules by which they hoped to achieve automatically a perfect architecture, it is probable that they accomplished more harm than good. Both the Roman and his Italian successors appear to have believed that by a careful examination of all the existing monuments within their limits of knowledge, and by comparing these monuments one with the other, they could discover a perfect proportion of each of the recognized orders of architecture. It is even possible that for the very simple temple form of classic times they did lay out orders more beautiful than any that had previously been built, since they were very great architects with a keen sense of proportion, made more acute by close and intelligent study of the existing examples, both classic and of their own times. That the orders as described and drawn by them were the final and inevitable solution of all problems is sufficiently denied by the fact that they themselves departed widely from their own formulæ. Whatever their theories on architecture may have been, they were primarily architects, and realized more fully than has ever been realized since their time, that *an order must be designed to fit the particular conditions of its use.*

This axiom appears to have been almost completely disregarded by the architects of our own times. The thorough early training in the orders according to Vignola, given in the architectural schools, has produced a false conception of the fundamentals of design and a timidity in departing from what has been taught as a standard, which has worked incalculable harm to modern architecture. We find men who ought to know better, designing a building around an order rather than designing an order to fit the building.



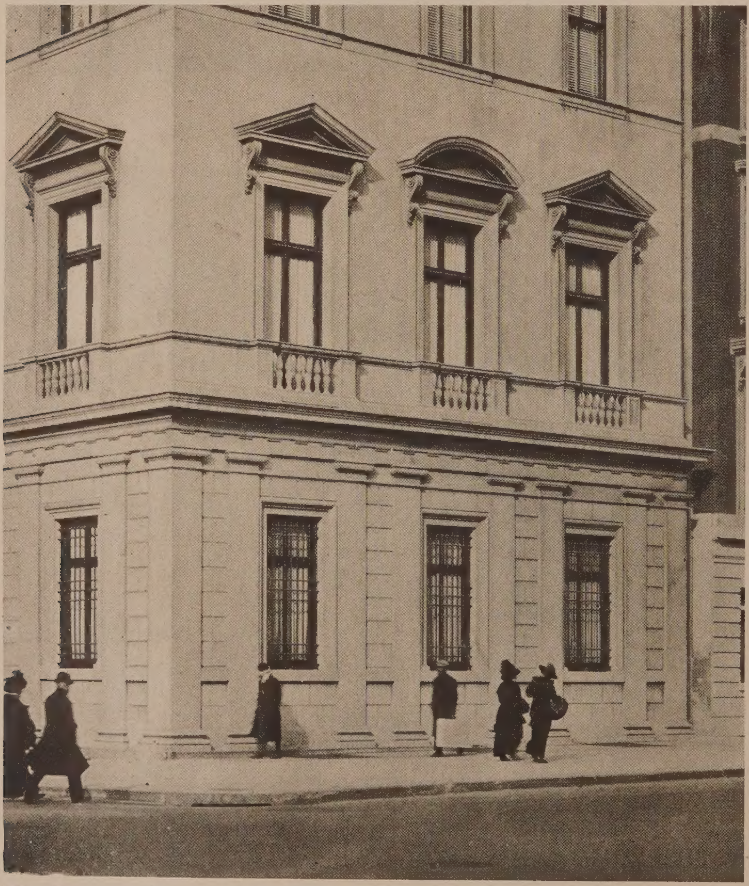
Freedom in Early Republic times—an early nineteenth-century doorway at Fitzwilliam, N. H.



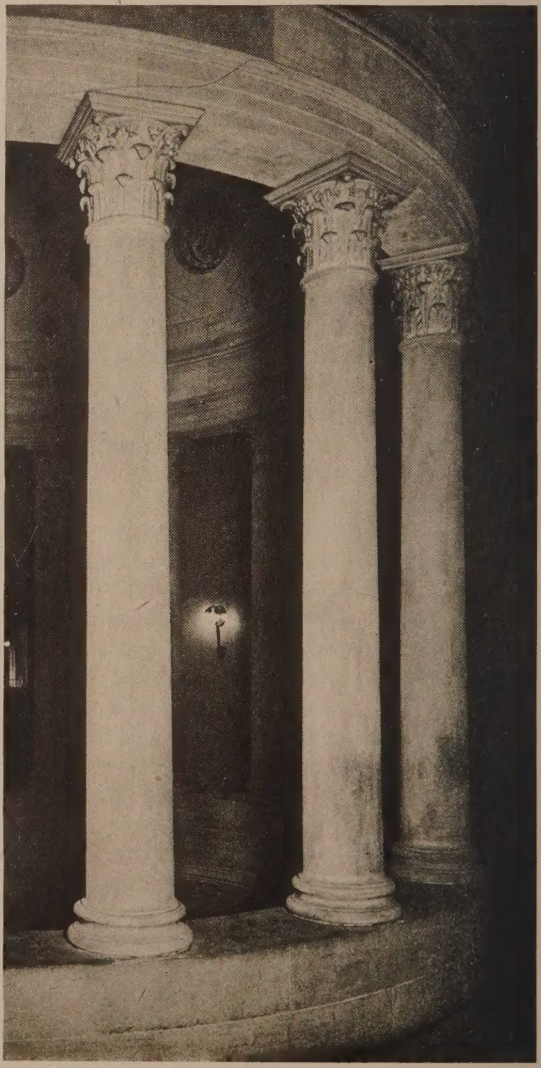
Perfectly classic—and perfectly modern. Wilmington Library. Githens & Tilton, Architects.

So deeply has this respect for the stereotyped detail of Vignola penetrated into the architectural sense of our men, that the one important nineteenth century departure from tradition, the "wheat and tobacco" order on the rotunda at Washington, is laughed at for its departure from tradition instead of studied to discover if it fulfils its function well or ill. The curious state of mind common to our architects is nowhere more evident than in their willingness to accept the Italian Renaissance variation of classic orders regardless of their quality. The Italian work was done five hundred years ago—it must be good—let us copy it! The American example dates from the early Victorian period—it must be bad—let us laugh at it. And yet, considered without prejudice, these columns in the capitol will be found not very novel, but of considerable charm and excellently proportioned for their purpose.

The orders are now rarely used as structural members; even in Greek times the treatment of the entablature had lost its original structural significance, and had become an ornamental expression of its function; and when in Roman times the architrave began to be replaced by a flat arch instead of single lintel, the anachronism is apparent. Yet to-day, when not one column in a thousand is actually the supporting member, the architects continue to repeat the drawings of Vignola with an accuracy which is wholly unreasonable. There is no heaven-born reason for the strict adherence to mutules in the Doric and consols in the Ionic which we see practised daily, any more than there is a sacred significance in the proportions of 8, 9, and 10. It is true that these figures do give an order which in itself is sufficiently pleasant, and is a fair average between all possible proportions; but to use it, as do so many of our architects, in all cases and for all materials, is an absurdity which cannot be sufficiently condemned. The English architects of Jacobean times knew well enough what the classic orders were like, but they also had skill to invent, and courage to use, ornament and scale which fitted their buildings. Our Colonial ancestors consciously used a far lighter column as appropriate to their material, and while we never think of the Puritan settlers of New England as possessing a playful and graceful fancy, certainly their ornament had both qualities.



The Doric order exquisitely adapted to the decoration of a basement. McKim, Mead & White, Architects.

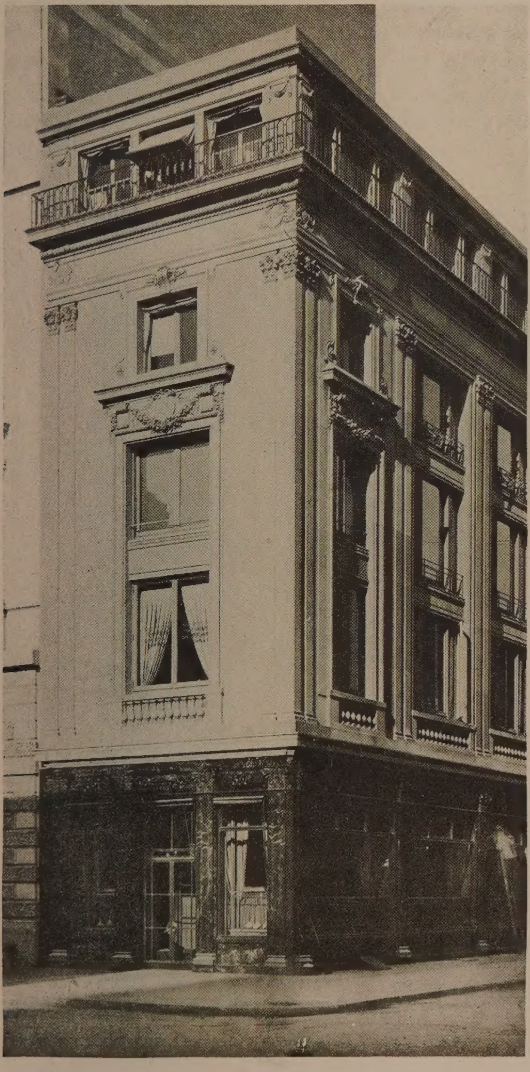


Once considered a daring and ridiculous innovation—the wheat and tobacco motive in capitals.

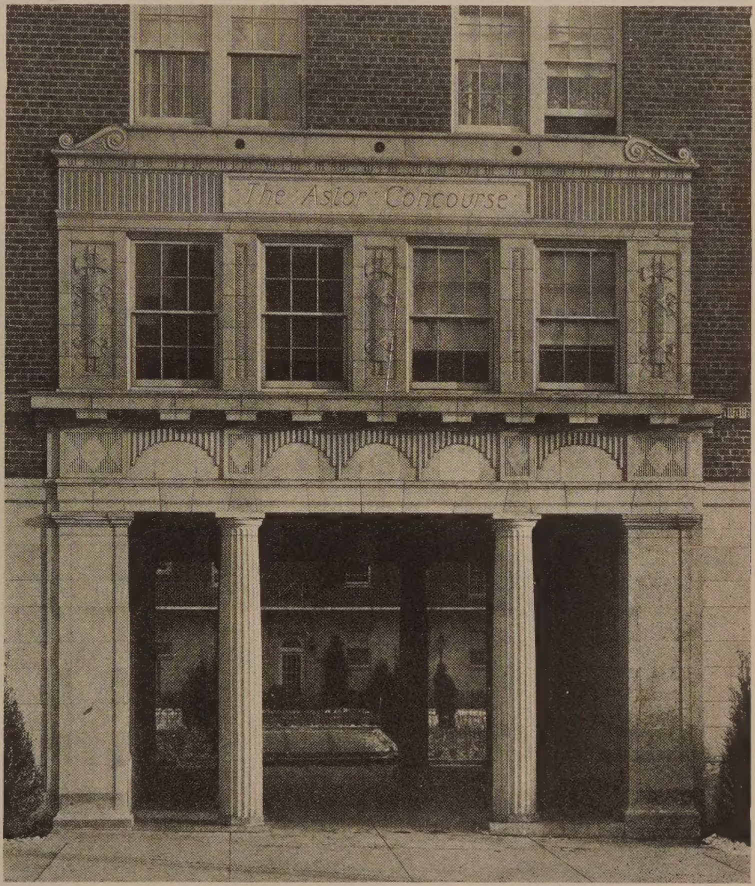
In our own times, when some skilful and capable architect has dared to depart from the conventional, the work has been admired and imitated; but not the principle on which he worked. Take, for example, the porch of the old Colony Club shown herewith. This is a porch which supports only a light and narrow roof; the material is iron; the columns are attenuated almost to excess; and the height of the entablature reduced to a very small fraction of the height of the column. Is this the work of some daring young architect? No, it was designed by those inveterate classicists, McKim, Mead & White; yet, classicists that they were, they realized, as has perhaps no other American architect, that the value of the order depends upon its relation to the design as a whole, and not upon its abstract beauty of porportion.

The late Burt L. Fenner once told a story which illustrates this point: Mr. B—— (a well-known and respected architect here in New York) told Fenner that he thought the order on the front of the New York Post-Office the best Corinthian order he had ever seen, and asked if he could have a blue print of the scale detail to copy on a building he was doing. This was furnished him; he later asked if he might have blue prints of the full-size details, and when Fenner said he could have the originals if he wanted—they would be easier to trace—demurred because they might be injured in handling. Fenner told him it would make no difference since the building was done, and they would not be used again. "And," said Fenner, "the damn fool didn't know architecture enough to know that the order was good only on that façade; he couldn't see why we didn't use it for all our Corinthian orders." Imagine the porch of the Colony Club treated with a miniature reproduction of the Post-Office order.

Nor need an order (in the sense in which the word is used here) be complete. The cornice may be omitted, as on the Saks building, or the frieze enormously raised to form panels above, without destroying the effect produced by the motive, and its use as a decorative motive will be thereby increased. Nobody has ever accused Carrère & Hastings of being daring innovators, and yet certain of the details on the Frick House, notably the treatment of the north wall and the trellis in the court, show how far one may depart from the book proportions and still preserve the general classic qual-

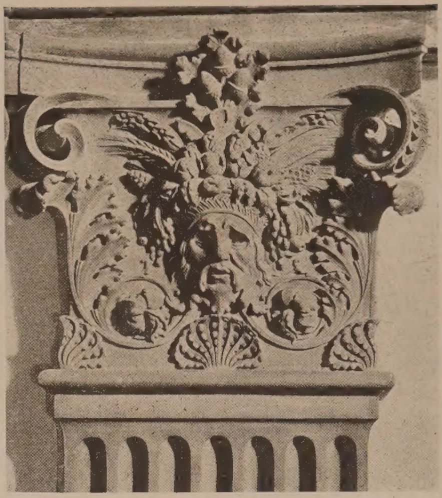


The Corinthian order used twice, regardless of the books. Warren & Wetmore, Architects.



An order designed to express load-carrying capacity. Aymar Embury, II, Architect.

ity of a building. It is said that Mr. Hastings likes to reassure himself as to the propriety of his designs by finding precedents for them, but the careful selection of precedent and its novel application is both intelligent and progressive. It is to be regretted that so many of us only select our precedent from the pages of Vignola, and even then from the front half of the book.



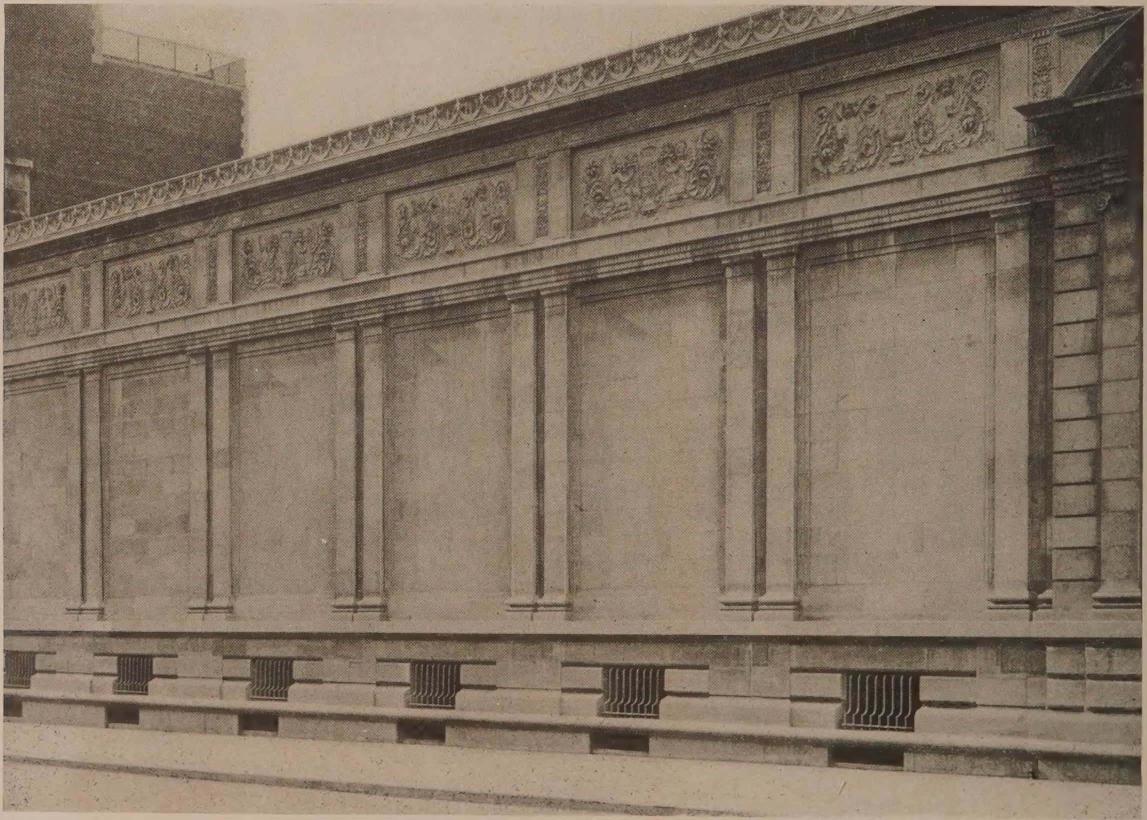
Sansovino did not think it necessary to follow Vitruvius.

Of an entirely different character is the order used on the Wilmington Public Library. This is Greek but not Greek; it is the author's belief as to an appropriate structural decoration carried out in bronze and steel and stone. It would have never come to pass if the Ionic order had not been invented, and quite possibly would not have taken its present form if Robert Adam had not worked in London a hundred years ago, but it is no more direct transcription of Adam's work than it is of Greek. It has the freshness and vitality of living architecture and not the sterile perfection of accurate archæology.

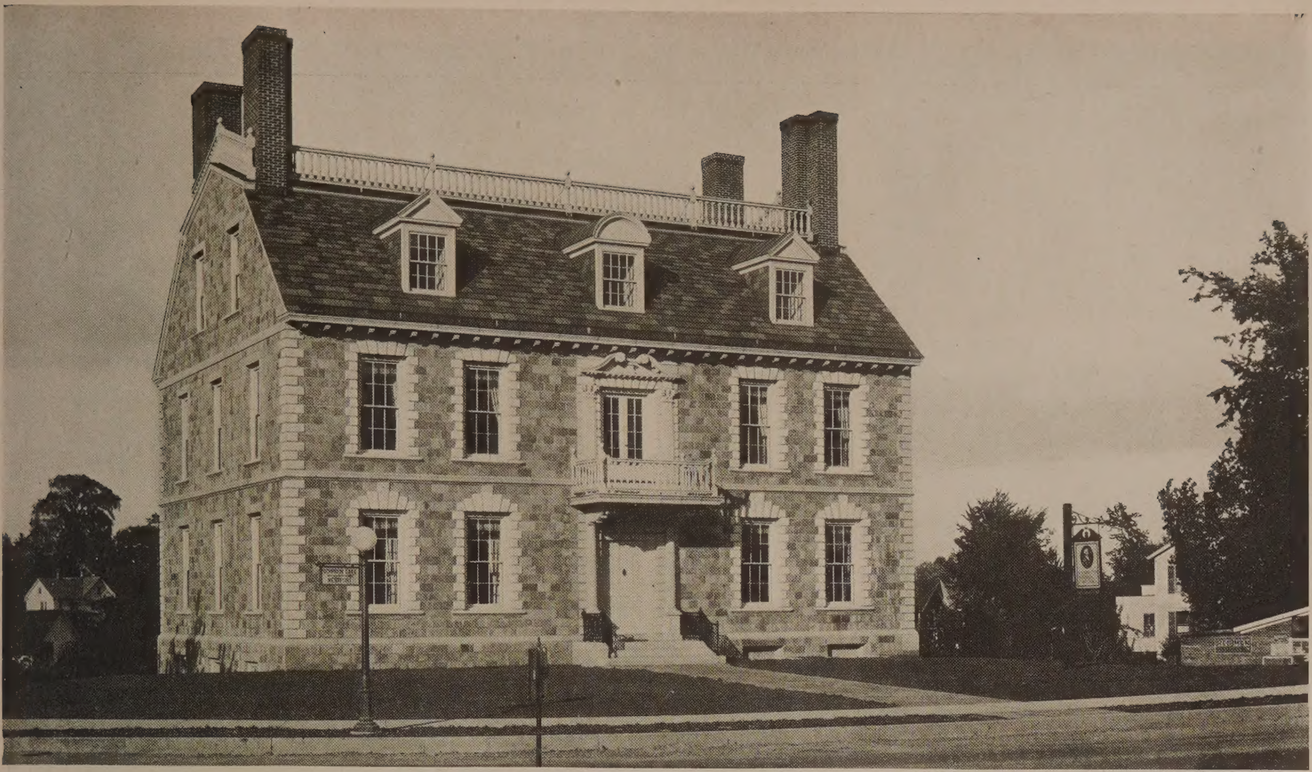
While we might describe the Flushing Bank as being in the Corinthian style, the entablature has been completely replaced by a colored marble panel, of a size and shape which vaguely suggests the classic proportion, but is far away from book design. Nor does this extremely free treatment either offend by its freedom or appear to proceed from ignorance of the books.

In the entrance of the Astor Concourse apartment it was the designer's endeavor to find a size and shape of column which would appear to support adequately five stories above a wide low entrance, and to span this entrance with a lintel so decorated as not to recall the lesser intercolumnation of classic work. The Peck & Peck shop front presented a somewhat similar problem, solved as on the Flushing bank.

These examples are enough to suggest how elastic the order is, and they are by no means the only cases that could be cited; yet they are amazingly small in number compared with the work in which no intelligent effort has been made to apply the order to the problem and not the problem to the order. In this country we need not more knowledge but more power; we must not, as have the Europeans, throw away all that the great architects have learned through many generations, but we must use it. We need not more books, but more courage.



The order as a wall decoration. The Henry C. Frick Gallery, New York. Carrère & Hastings, Architects.

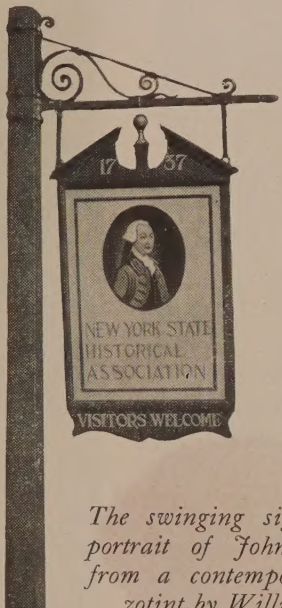


A Reproduction of the Hancock House

By Elizabeth Tower

THE year 1863 saw the relentless course of progress descend upon the old Hancock House of Boston which had faced the famous Common for over a hundred years. Various parts of the ornamental detail were distributed for preservation among museums and societies in New England; measured drawings were made by John Sturgis, and the old house was torn down. This stone mansion was one of the best of the homes of wealthy owners built before the middle of the eighteenth century in New England, when the classical orders were beginning to appear in Colonial architecture and when the presence of a few stonecutters in this country made possible the use of that material in exterior decoration.

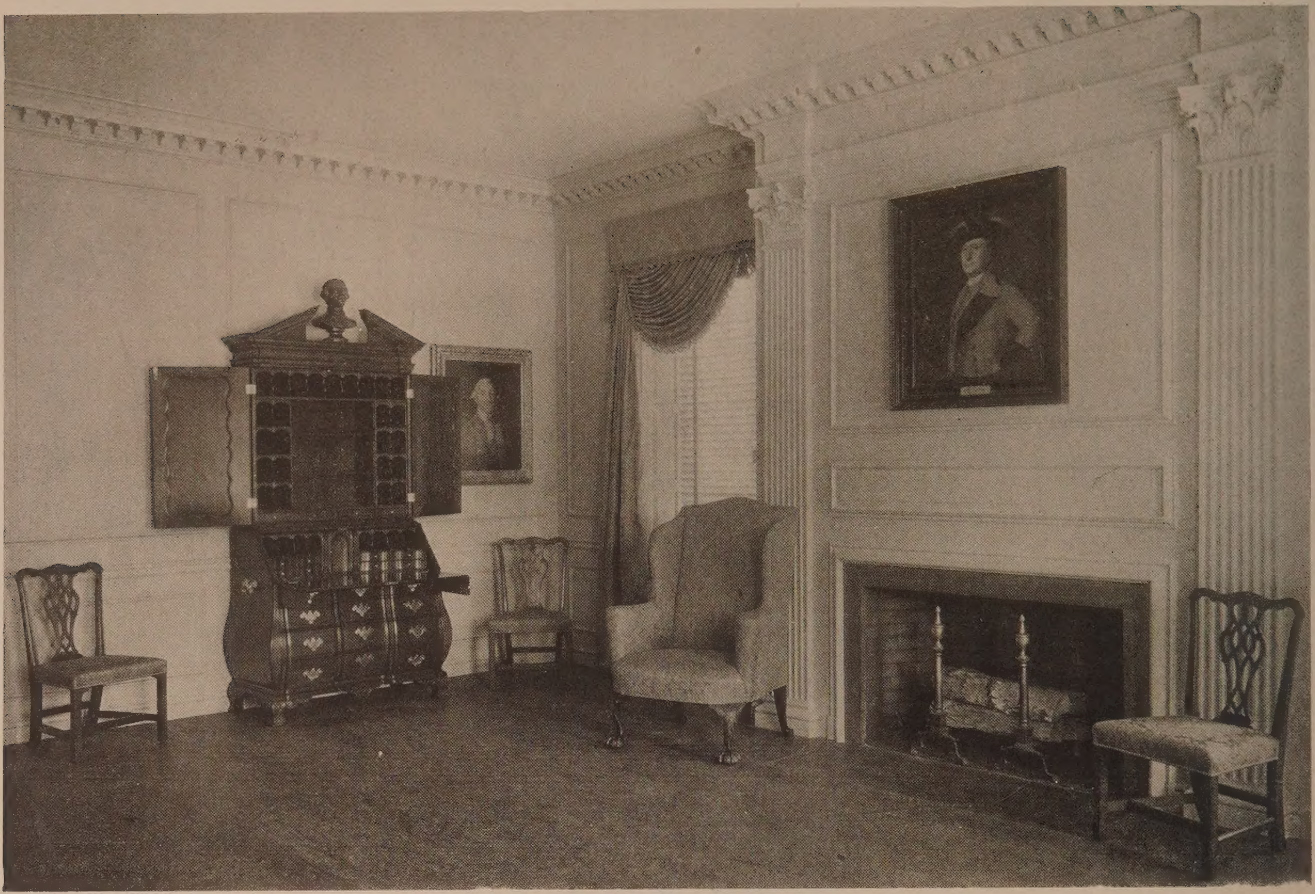
The process of designing the Hancock House is very apparent A cultured man such as Thomas Hancock, merchant and bookseller, who founded a chair at Harvard in Hebrew and Oriental languages, undoubtedly owned a number of English architectural books. With the aid of a good "housewright," such as William More who built the house, he could have found little difficulty in working out this very creditable dwelling. Though American and English housewrights used many of the same books, the resulting houses are quite different. Our houses were built by workmen of various nationalities each of whom had a tradition of his own to incorporate into the design.



The swinging sign bears a portrait of John Hancock from a contemporary mezzotint by Williamson.

M. H. Westhoff was the architect of the reproduction. The furnishing was done under the direction of R. T. H. Halsey.

The main part of the Hancock House was built of granite with corners and window facings of Connecticut sandstone, better known to-day as "brownstone." The contract for this trim between one Thomas Johnson, of Middletown, Conn., and Thomas Hancock, the uncle who adopted John Hancock, gives 1737 as the date when the house was begun. Thomas Hancock occupied his house from 1740, making numerous improvements and changes, and bequeathed it in 1764 to his more famous nephew, John Hancock, President of the Second Continental Congress, first signer of the Declaration of Independence, and governor of Massa-



The parlor. In furnishing the rooms careful reproductions of the very best early American examples were made; the secretary-desk was copied from one used by General Washington at Craigie House.

chusetts from 1780 to 1793. Thus the house became famous not only through its illustrious occupant, but also through its unusual architectural beauty, paintings, furniture, and hangings.

That the home of all this history and tradition was lost seemed an unfortunate reality until Horace A. Moses, of Springfield, Mass., a son of Ticonderoga, N. Y., offered to reproduce the Hancock House there as a permanent home for the New York State Historical Association. The existence of measured drawings made by the late John Sturgis, along with architectural details accessible at the Essex Institute, Massachusetts Historical Society, and other places, made possible a close reproduction of the famous old house. For the sake of permanence in the reproduction, a light gray varying stone of Weymouth seam-face granite was used for general surface, laid up in regular courses, but each stone varying in length at random. The granite trim for windows, doors, and cornice is white Coventry granite with medium-pointed face. The new house was built last year under the supervision of M. H. Westhoff, architect, of Springfield, Mass., and furnished with reproductions of fine furniture made under the supervision of R. T. H. Halsey, chairman of the Committee of American Decorative Arts, of the Metropolitan Museum of Art in New York.

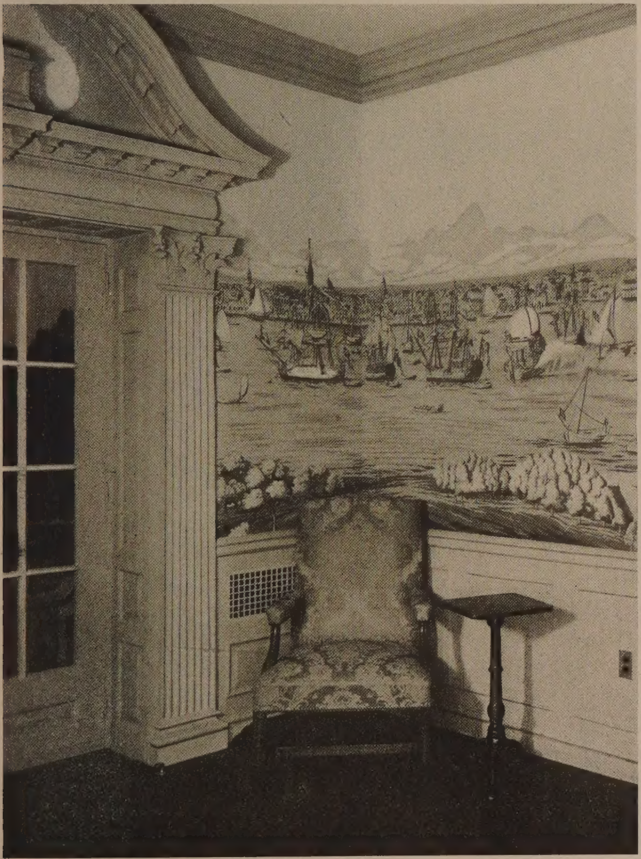
In August last the New York State Historical Association opened its new home to the public. The house faces Moses Circle in the town of Ticonderoga, and outwardly, except for the newness of the stonecutting and the difference in the elevation from the street, resembles very closely the old Boston mansion. The house, approached by a flagstone walk, is impressive. It is elaborately decorated above the entrance door by a small balcony opening from the second floor through a beautiful doorway surmounted by a broken pediment and flanked by unusual Corinthian pilasters. The decoration of this doorway, cut as we know at Middletown, Conn., had a far-reaching influence upon the architectural details of doorways in the valley of that great river. The door from Westfield, Conn., at the entrance of the American Wing of the Metropolitan Museum of Art in New York is an accessible example. Undoubtedly the housewright who made this door had been at Middletown and had seen the work there being done for the Hancock House, for this doorway resembles the Hancock doorway in its broken pediment, pilasters, and treatment, except that the Connecticut carpenter knew nothing of Corinthian columns and used what he remembered, filling in the rest with Jacobean carving such as he had seen all his life on Connecticut chests. The treatment of the bases of the pilasters puzzled him, but he reached, to him, a satisfactory solution in reproducing the whole door in miniature at the base of each column.

The windows of this house are arranged in classical symmetry across the front, with three excellent dormers on the third floor which illustrate the use of alternation of triangular and segmental pediments according to the manner prevailing in New England houses built during the first half of the eighteenth century. The east elevation in one of Mr. Sturgis's drawings (pp. 333-336) shows the roof to be an early example of a strong construction used in all fine houses built later in the century.

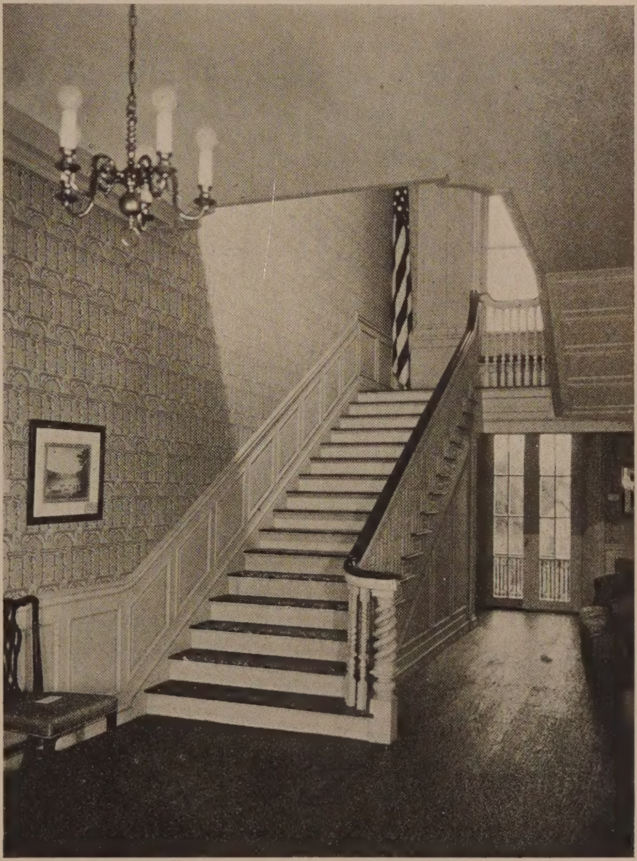
Inside, the house has been slightly changed to coincide with the needs of a museum, library, and historical association, but retains its finest architectural features. Like most of the houses of the period, notable among which are Westover on the James River in Virginia, the Craigie Mansion in Cambridge, and Mount Pleasant in Philadelphia, it is divided by a broad hall with an imposing staircase. A large Palladian window at the far end of the hall on the first landing of the staircase lights the hall, up-stairs and down. Details of the staircase and window are shown in one of the plates. The newel-post exemplifies a high development of intricate carving, as it carries the well-known single spiral post, still at Carter's Grove near Williamsburg, Va., one step further, into a double spiral with the outside twist carved in the opposite direction from the inside one. Three different turnings have been used in the balusters on each step, as is the case in the famous Schuyler House at Albany.

The east end of the house has been laid out in the same manner as the old house, with a large front room on the first two floors and a smaller room behind it. The large room down-stairs on the right is a panelled parlor of fine proportions with a great fireplace on the far wall. Panelling was adopted here in the first quarter of the eighteenth century, and had reached a fair degree of perfection by the time the panelling was installed in the original house. The narrow sunken moulding and bevelled raised panel, with the centre flush with the surrounding rails, is used here in large panels. Corinthian pilasters on either side of the shelfless chimney-breast, the strong cornice with its fine medallions, combined with the panelling, make this room an outstanding example of pre-Revolutionary style in interior architecture. The fireplace opening is faced with marble like that in the original house. The window-seats, which inevitably were used to fill up the space at the windows caused by the exceeding depth of the outer walls, have here been utilized to cover radiators.

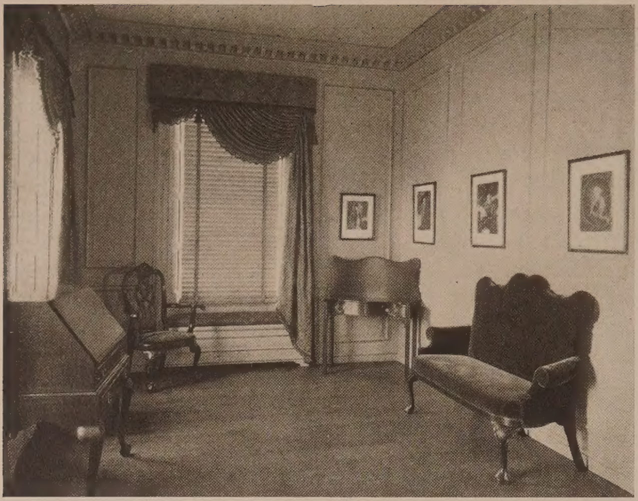
The parlor furniture consists of reproductions of some of the finest pieces known to have been in usage when John Hancock was in his prime. A handsome mahogany secretary-desk has a kettledrum or bombé base with a block front. The top is elaborately panelled and flanked with Corinthian pilasters according to the best taste of the time. The inside has been carefully fitted with numerous pigeonholes and drawers in a masterful



The upper hall wall-paper is in tones of gray, the design based on a rare print of New York in 1716.



The main hall. For details of the newel and balusters see the Sturgis measured drawing, page 335.

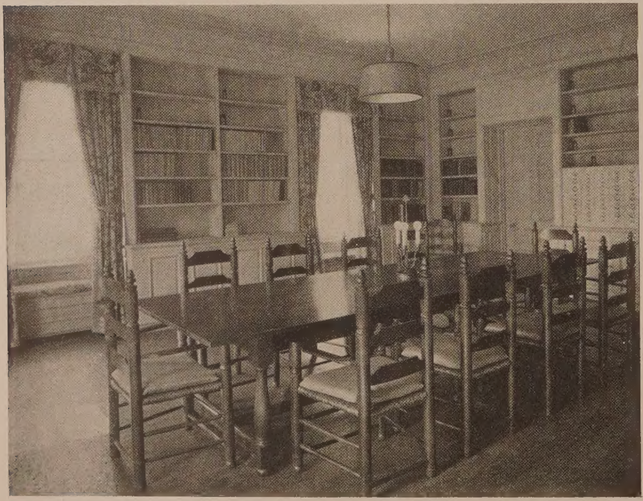


A room opening from the parlor. The chairs and the sofa are covered in plum-colored velvet.

bit of cabinetmaking. General Jeffry Amherst's connection with the history of Ticonderoga is recalled by the wooden bust of the "soldier of the King" which stands in the broken pediment. The original desk, now in the American Wing of the Metropolitan Museum of Art in New York, has the added interest of having been used by General Washington at the Craigie Mansion in Cambridge when organizing the Continental forces, long before the history of the Republic was written.

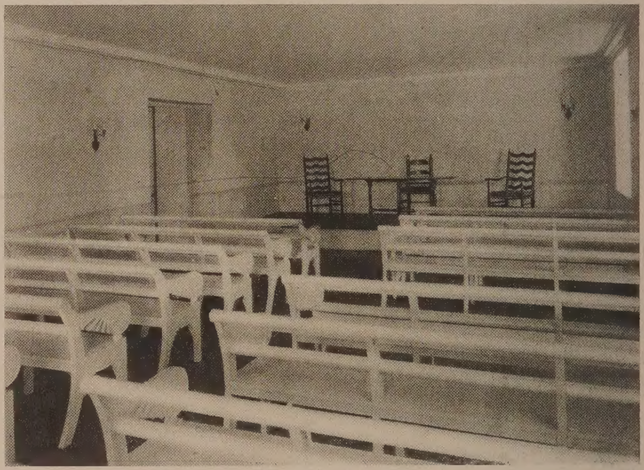
The large Chippendale sofa has excellent lion's-paw feet, and a roll of curve in back and arms astonishing in an American piece of that early date. The original was undoubtedly made in Philadelphia, where it was used by Washington when the Presidential mansion was in that city.

A pair of handsome wing-chairs, among the finest of the eighteenth century easy-chairs, copied from one in the American Wing of the Metropolitan Museum of Art, have a most appropriate setting here in John Hancock's parlor. The red brocatelle covering, as well as the green on the beautifully carved Chippendale side-chairs (also in this room), has been woven to give the appearance of old material on old furniture, though no attempt has been made in any way to "antique" the furniture.



The library is lined with bookshelves for the Museum's purposes and equipped with Carver chairs.

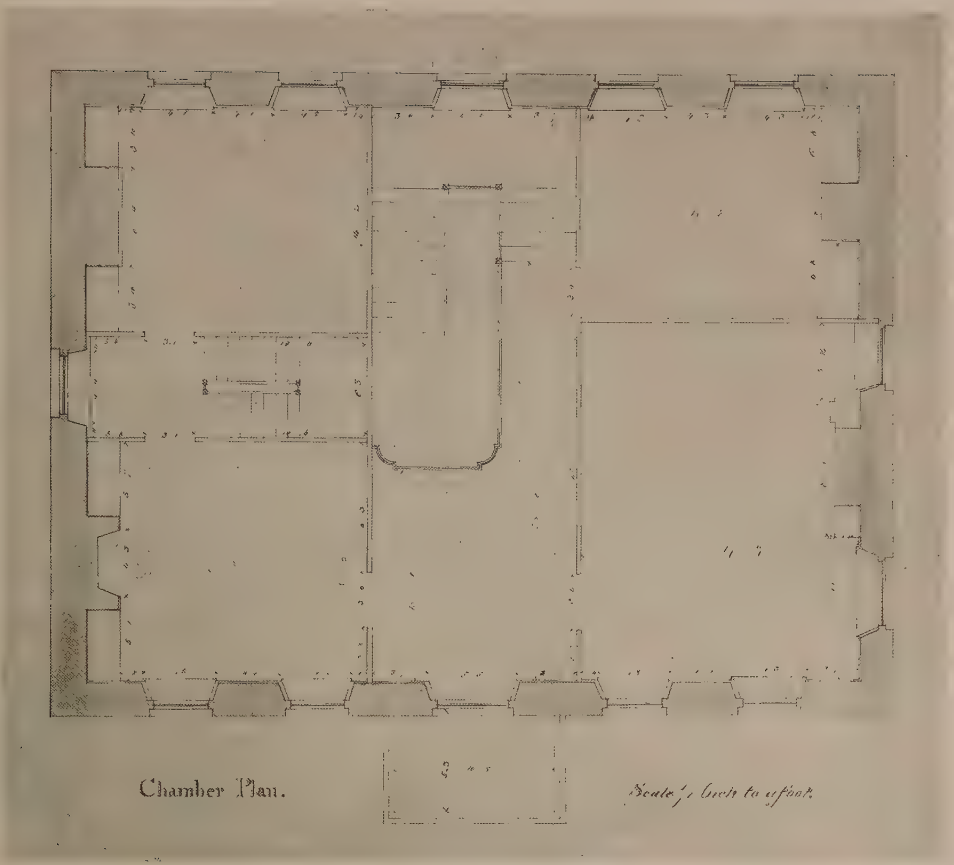
The small room on the rear, opening from the parlor, which John Hancock may have used as an office in the original house, also contains many fine reproductions of Colonial furniture. The room itself is panelled and corniced like the large room, but has no fireplace or columns. Its Queen Anne settee, made in Philadelphia in the second quarter of the eighteenth century, is a copy of one ordered by Governor James Logan, of Pennsylvania, for his famous house, "Stenton," at Germantown. Two remarkable walnut side-chairs, with pierced splats and an earlier cresting, and a William and Mary desk comprise the furniture here. The gaiety of colors in hangings and furniture coverings and the beauty of grain and color in all the furniture evidence the Colonists' love for the luxurious and beautiful.

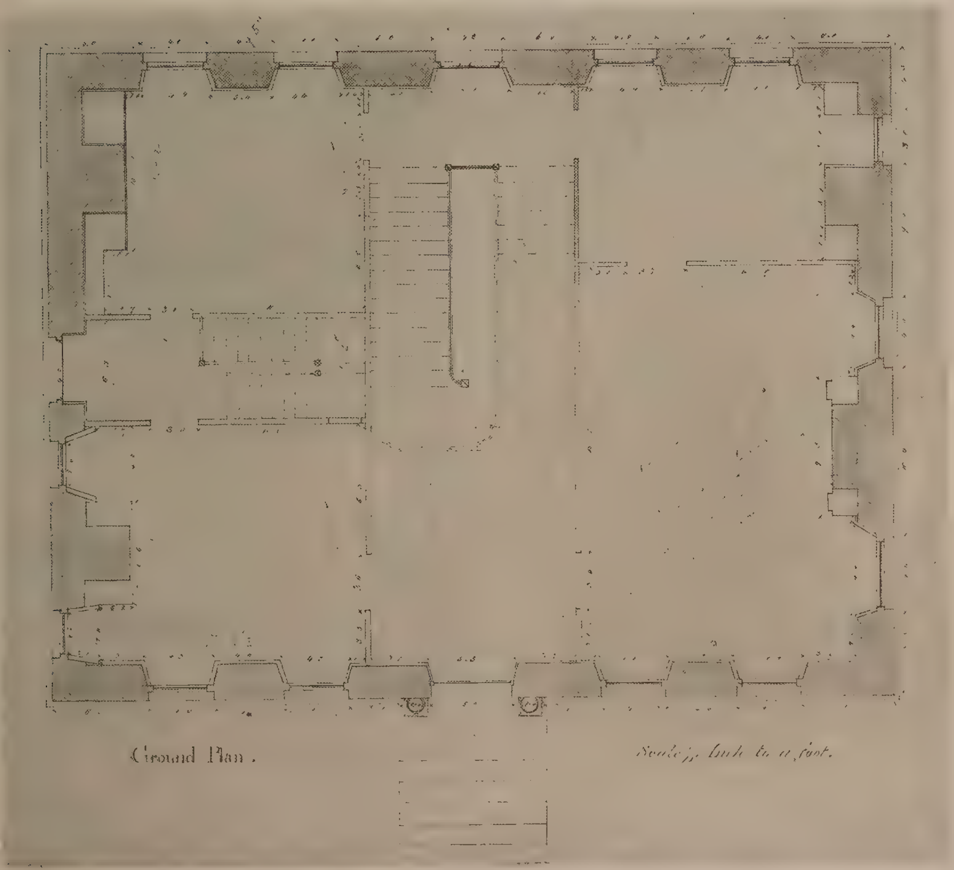


For this lecture-room the benches used were reproduced from some used in Independence Hall, Philadelphia.

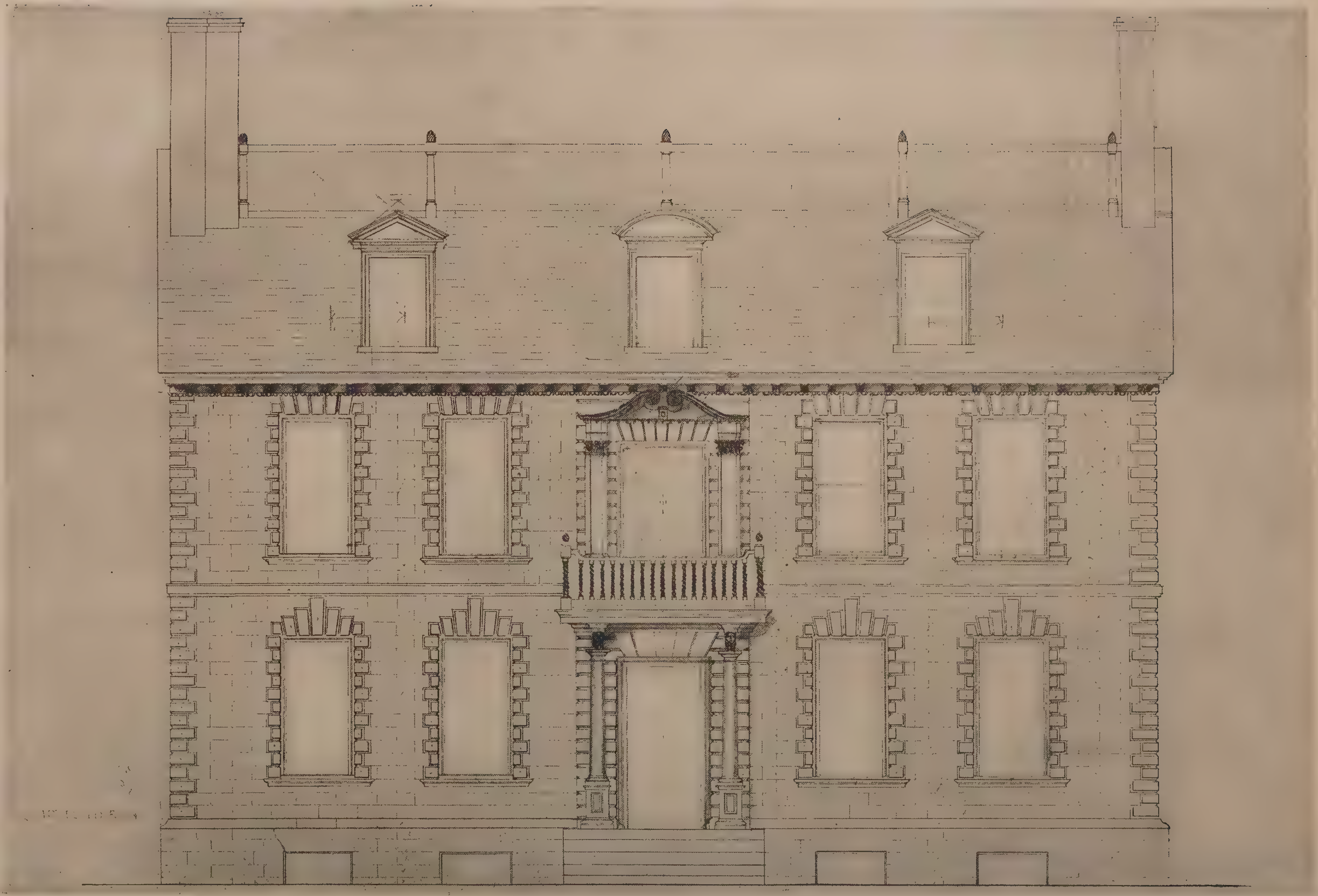
One of the important features of the interior is the wall-paper on the second-floor hall, which is designed from a rare old print in the possession of the New York Historical Society. It shows New York as it appeared in 1716 from the Brooklyn shore—old Dutch houses with gables, built when the city was New Amsterdam; further up-town, prim rectangular English houses; a harbor dotted with ships flying the English flag and firing salutes, obviously a notable occasion now forgotten. The paper is in tones of gray and darker gray, effective with the grayish-blue wainscot and trim.

Mr. Moses has indeed given a handsome gift, not only to the New York State Historical Association, but also to the numerous visitors who see it, and to the country at large. Through the co-operation of the members of each committee, the foresight of those who had the measured drawings made, and the best efforts of all most concerned with the construction of this house, it stands as a living and lasting memorial to American traditions in history and the fine arts.





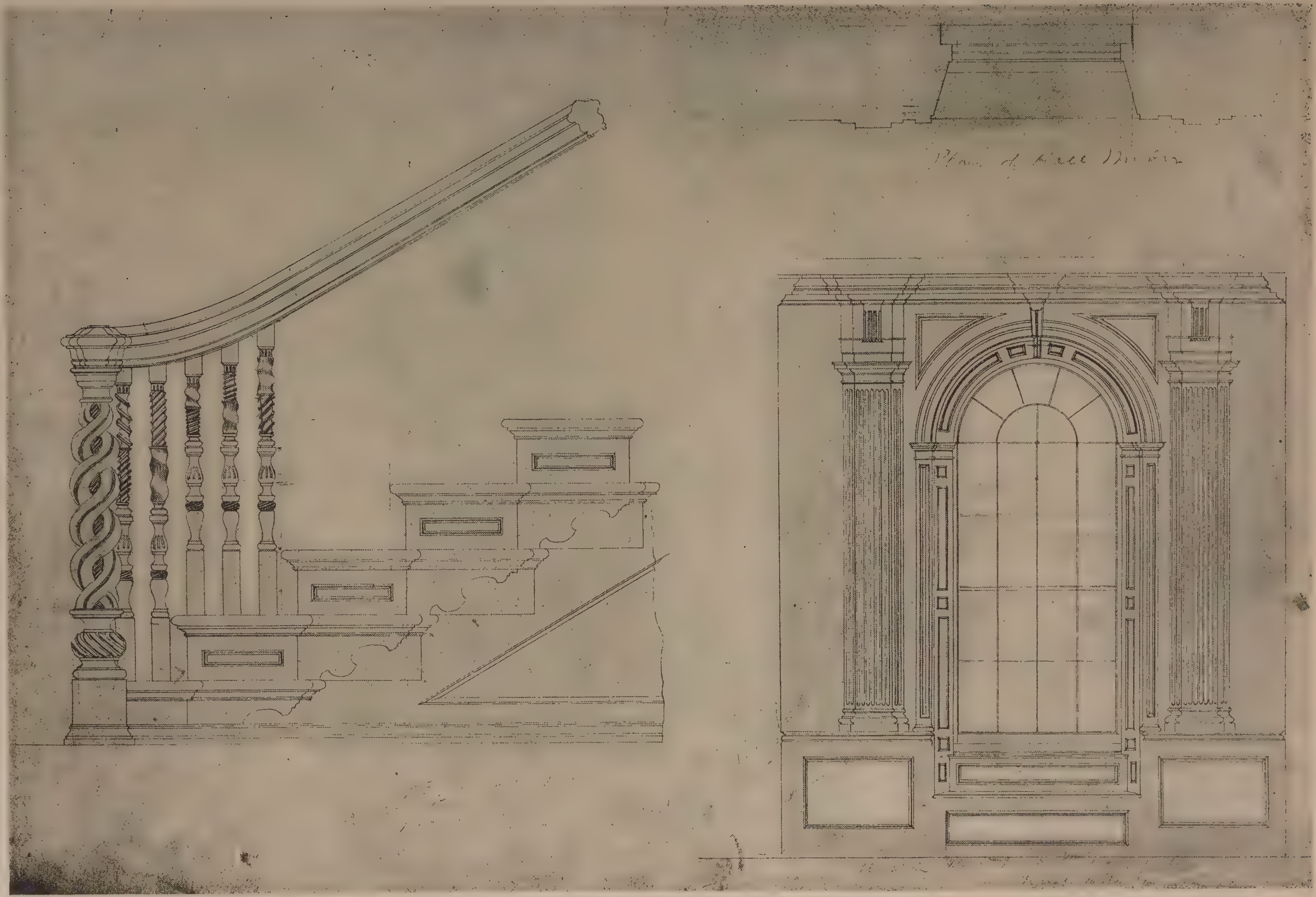
HANCOCK HOUSE, 1737, BOSTON (Demolished in 1863)
Measured and Drawn by the late JOHN H. STURGIS



South (Front) Elevation

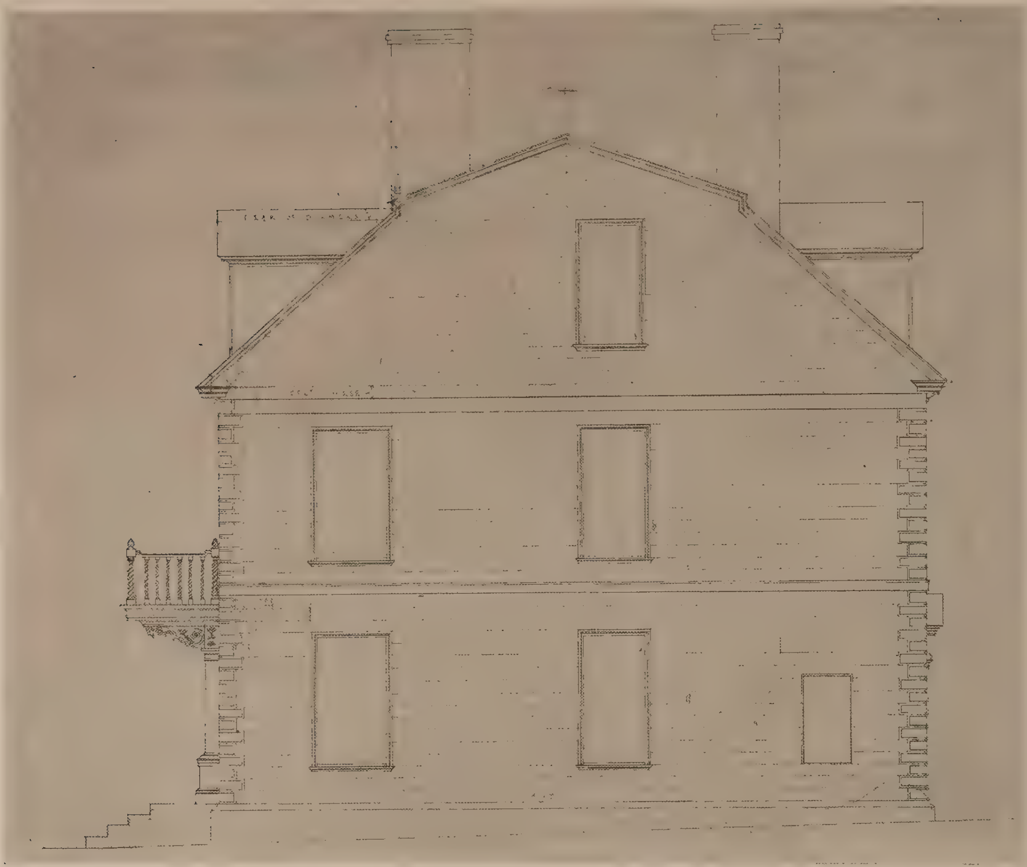
Measured and Drawn by the late John H. Sturgis

Hancock House, 1737, Boston (Demolished in 1863)

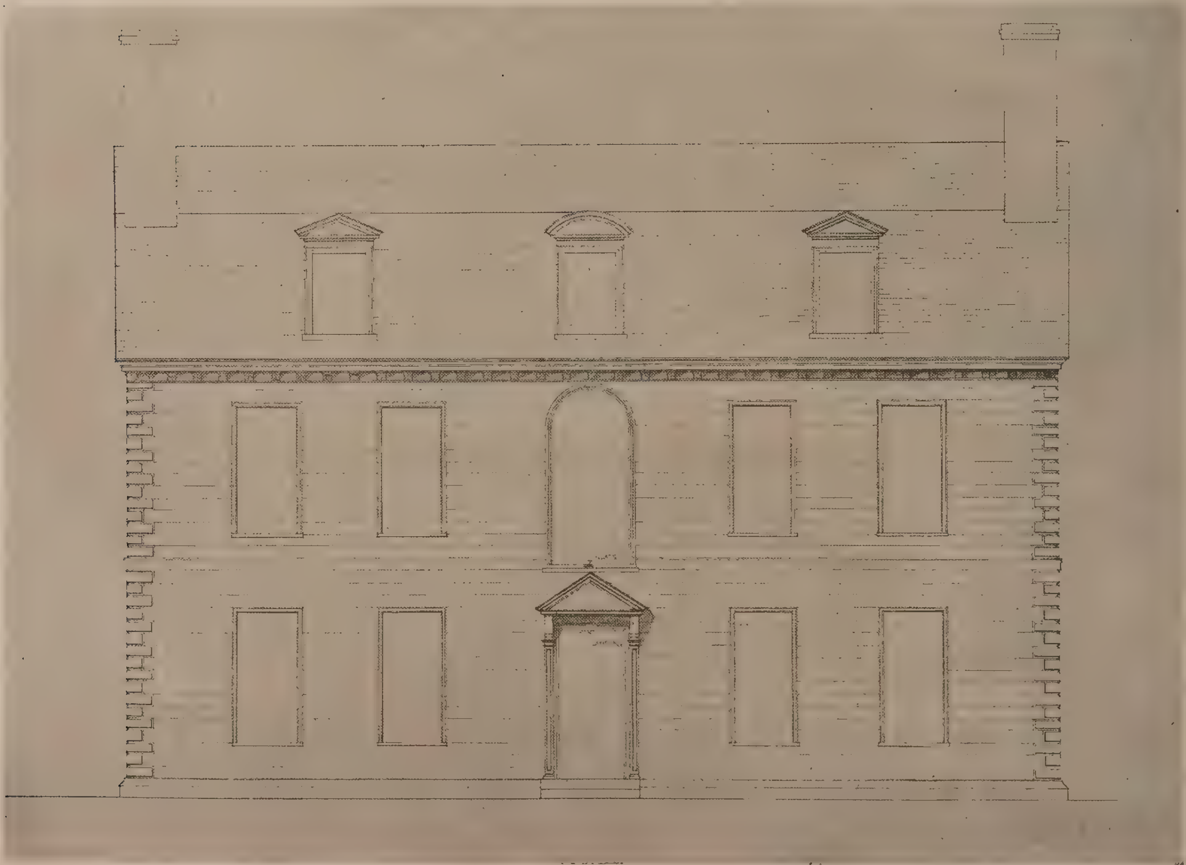


Main Stairway and North Hall Window
Hancock House, 1737, Boston (Demolished in 1863)

Measured and Drawn by the late John H. Sturgis



East Elevation HANCOCK HOUSE, 1737, BOSTON (Demolished in 1863)



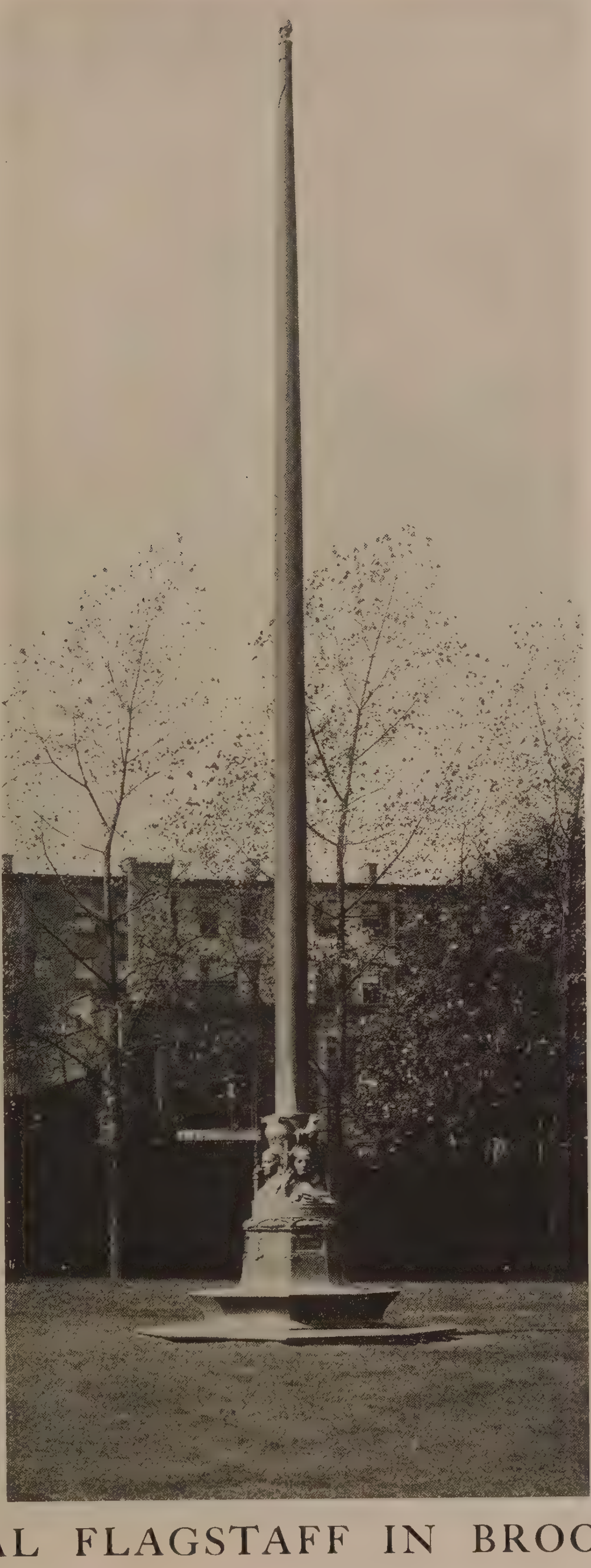
North Elevation Measured and Drawn by the late JOHN H. STURGIS

A MEMORIAL FLAGSTAFF IN BROOKLYN, N. Y.

"TO COMMEMORATE
THE SERVICES OF THE
MEN AND WOMEN
OF PRATT INSTITUTE
IN THE WORLD WAR,
1914–1918"

WILLARD PADDOCK
Sculptor

Erected by the Trustees
of Pratt Institute



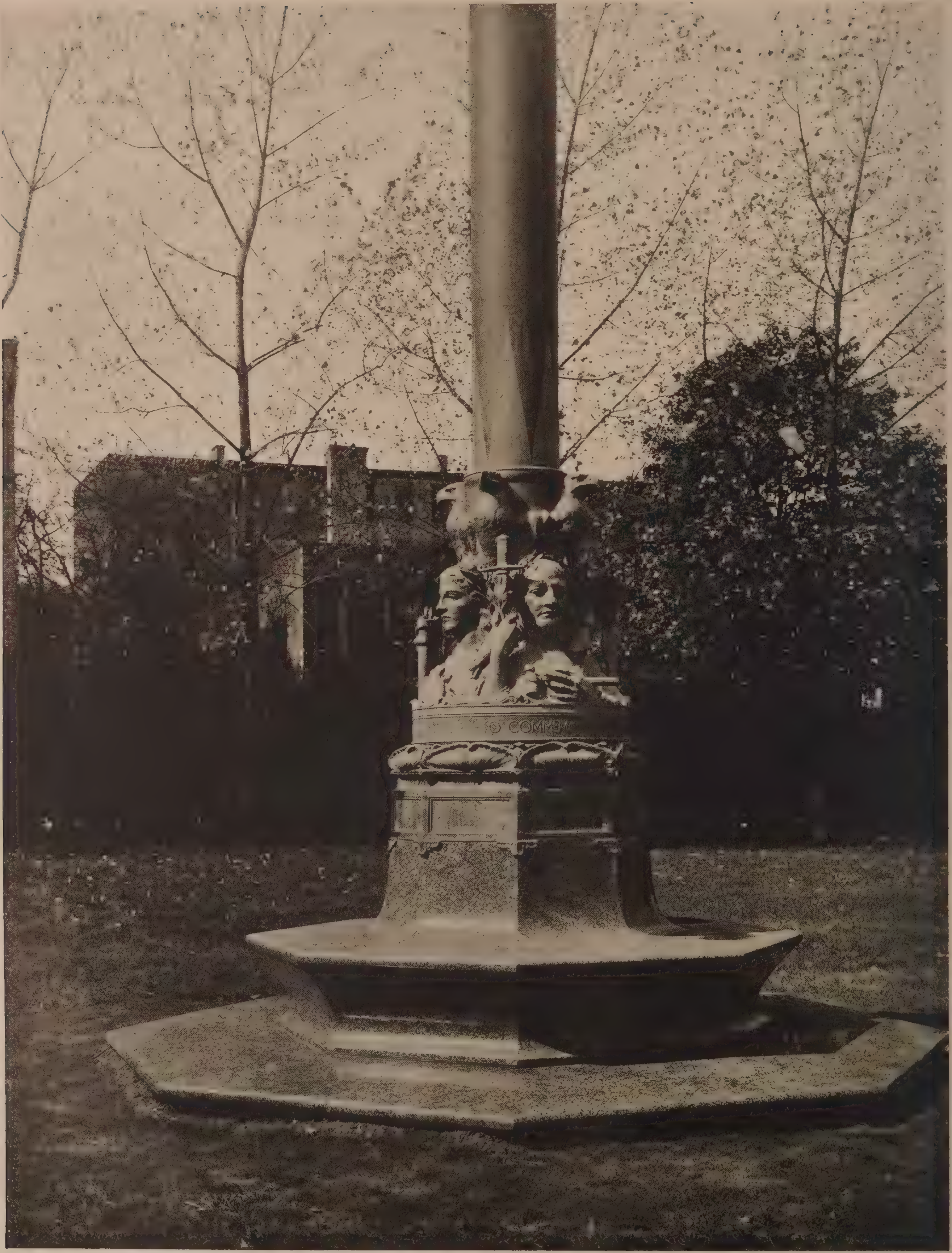
ARCHITECTURALLY and sculpturally this work is a complete departure from the traditional flagstaff originating in Venice, which excellent design has dominated the style of flagpole bases for so many years.

The Pratt Institute flagstaff base is distinctly constructive in its impulse and appearance as an architectural support for the shaft, while its ornamental form depends entirely upon the complete symmetry of these basic lines of construction and is a blossoming of these forms into flower of symbolic ornament.

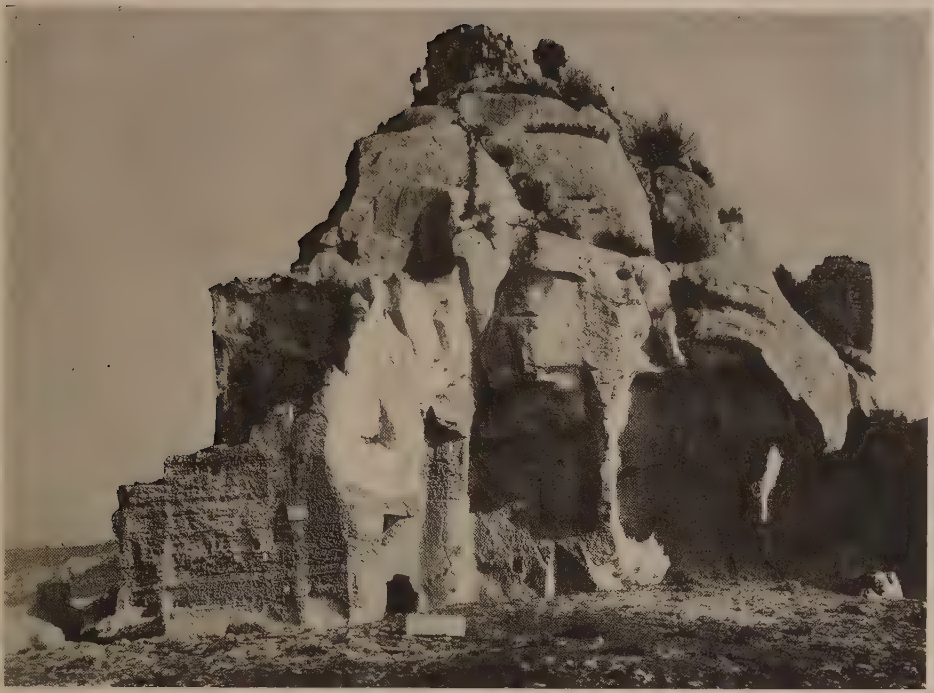
The flagstaff stands foursquare, facing the main gateway to the Park in front of the main building of the Institute. As it can be seen from all sides, the sculptor adopted the octagonal form to lead naturally from the square to the circular treatment. The polished green Conway granite masonry is therefore octagonal and consists of a low step twelve feet in diameter supporting a bench of connected design, and upon this stands the sculptured bronze, consisting of eight simple panels surmounted by foliated ornament supporting the circular band bearing the inscription.

The spiritual elements of culture have been continuous during the life of the Institute, and these elements are Art, Science, Literature, and Labor Skill. Symbols of these four activities, then, are the four heads supporting the centre, which is the shaft of the flagpole. The four characters carry and uphold various tools and products of their crafts: the Pen and Scroll of Literature, the Hammer and Square of Labor Skill, the Searching Glass and Torch of Science, and the reflecting Mirror and Tools of the Arts.

The heads are crowned and flanked with masses of laurel, above which stand guard the four eagles symbolic of the patriotism of the North, South, East, and West.



MEMORIAL FLAGSTAFF, PRATT INSTITUTE, BROOKLYN, N. Y. WILLARD PADDOCK, SCULPTOR



The château rock crowning the acropolis—the remains of a large vault exist at the right.

Some idea of scale is gained by noting, in the left foreground, a door opening into a large chamber.

When the Gods Dwelt in France: Les Baux

By Gerald Kenneth Geerlings

ILLUSTRATIONS BY THE AUTHOR

Historical Note: The author has pieced together such documents and available information as could be painstakingly scrutinized, but no doubt the results are far from perfect.

It is one of those unlamented catastrophes of all times that some of the chronicles concerning the gods at Olympus are not on file. An entire series is lacking on their removal from Greece to France. A matter as consequential and far-reaching in effect as this would interest even a Hottentot, yet we can surmise that it may only have been a summer colony, established to evade the humidity of the Ægean. An impending revolution and counter-coup may have presented an excess of petitions to answer during the summer heat. Or the exchequer may have been shrunk with court scandals, and the difference in the exchanges offered relief. At all events it would seem a certainty among items of unrecorded history that the gods did desert their accustomed habitat on Olympus.

And such was the origin of Les Baux. It was quite a jaunt from Olympus in those days, but now it is only nine miles from Arles and accessible by train if you have the patience to await the one per day, or by private automobile if you have the sixty francs for the round trip. But it was so well chosen by Mercury that even to-day there are scarcely any humans, even among the all-wise Americans, that are aware of its existence.

ONE may leave the pleasant but unexciting environs of Arles and traverse fertile farmland for about five miles when the world begins to change very rapidly. The valley of the Rhone with its flat country is quickly forgotten in hills that begin to follow each other in varying form and color. A competitive spirit among the undulations seems to lead them to vie eagerly with one another so that presently there begin to appear precipitous cliffs, huge unshapen masses of rock lolling about, pretentious spires in the distance, and over all a rich mantle of every known color. By some miracle a road cautiously picks its way among the less chaotic moods of the hills and foot-hills of the "Chaine des Alpines." By still more of a feat than any previous one it begins a most circuitous and antigravity ascent, until you wonder why it, like yourself, does not become dizzy and go no farther. But the road persists in its contortions like a starving acrobat intent on earning a meal, and finally, from behind a bigger and more formidable rock than any that has previously appeared, the town of Les Baux presents itself to greet you.

A glance suffices that only the gods could have conceived the idea of living here. There were extremely secure foundations and plenty of stone, not to mention the opportunity and the landscape. But surely no human would have picked the place from a real-estate standpoint. The distinguishing things about Les Baux are twofold: first, the labors of Hercules and, second, those of Man in the early Renaissance. Perhaps Mercury may have had a difficult task discovering the place and Vulcan had to work particularly hard in forging tools that would cut this rock, but without a doubt Hercules got the major assignment in hewing out whole banqueting-halls. The château on the topmost pinnacle of the assembled heights is partly built up, but a good share of it still standing represents inconceivable toil in cutting away virgin rock. Not the clayey sandstone that makes

cliff-dwelling a simple matter as in the vicinity of Gaudix, Spain, but an even-grained monolith, which treats a pen-knife to a hard reception, records the patience which produced Les Baux.

The sketch shows the ensemble from below. The approach spirals around the other side of the rock to the right. The château overlooks the cliff at a dizzy height and must have greatly increased the workmen's insurance. The openings in the remaining château wall appear large; in reality the smallest is about ten feet wide. The photographs convey some idea of the magnitude of the accomplishment. The vaults still standing are monoliths, subjected to the trials of exposure for five hundred years.

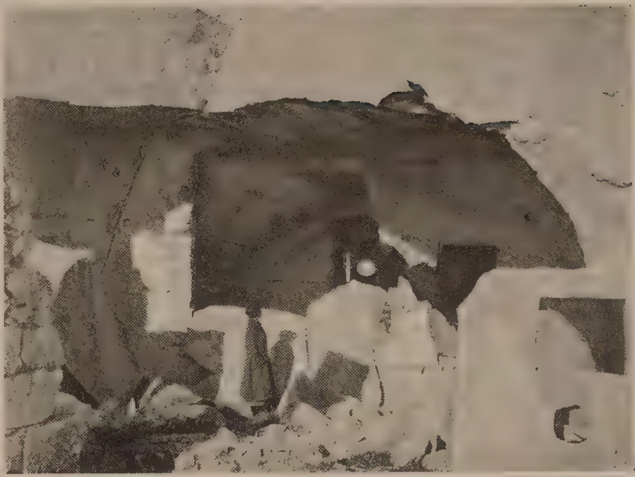
After its season as the summer colony of the gods, Les Baux was most proud of itself during the Middle Ages when it was one of the most flourishing strongholds in southern France—as well it might have been as far as natural protection went. The population then is placed at 3,500, while now it is barely 300. If the magnitude of the monolithic chambers is astounding, much more so is the high excellence of the late Gothic and early Renaissance detail which adorns the façades. As capital of one of the most prosperous and powerful countships in Provence it must have looked its rôle!

One's imagination can readily populate the present huddle of houses with a dashing colony of conquerors of the peaceful valley below. They could have lived on spoils to fatten even a Cassius. But now, what do the villagers find to occupy themselves and how do they earn a living? It is as inexplicable as the longevity of the town itself. Exposed on all sides to heartless, unceasing winds and uncared for through several centuries of exposure, one marvels at the conscientious construction which still stands stolidly, and the ornament delicately and graciously carved on the humblest doorway.

Les Baux is a storehouse of surprises. The initial amazement of this eyrie clustered in the clouds only prefaces that of the exploration about the streets. The imposing château, with its ponderous arches miraculously standing with not much but force of habit to keep them up, may attract one first. An iron rail has been rigged up to afford a perilous ascent along the side of the château overlooking the world to the south. The Mediterranean, the Sahara, Abyssinia, and Madagascar seem as though they could not be far from view. The top of the Woolworth never felt half so precarious nor surveyed such a boundless horizon. On a blowy day the pinnacle is not so much a place for poetical revery as an automatic take-off for parachute-jumping. It is rather a relief to stumble down to architecture again and appraise the merits of the local Brunelleschis!

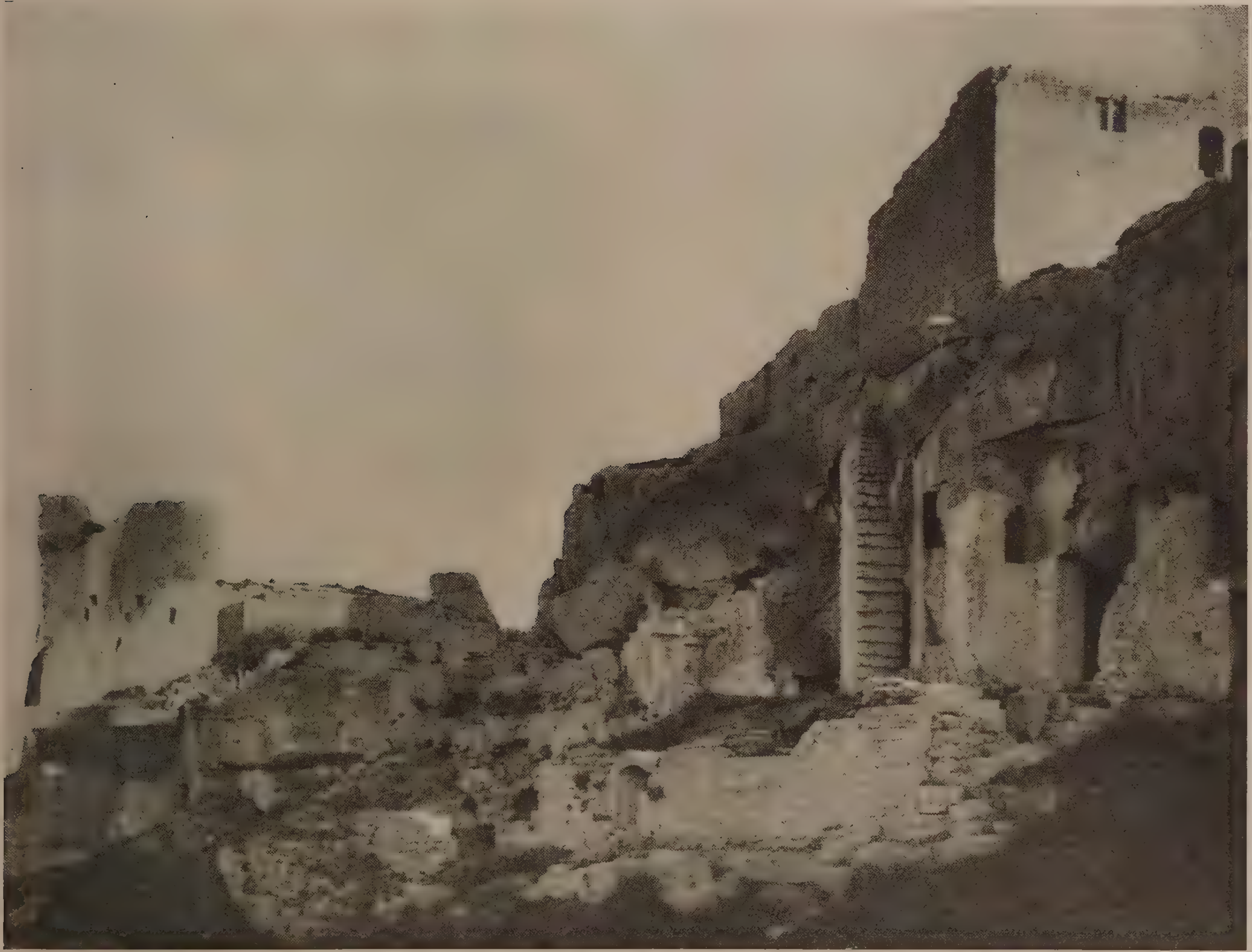
Les Baux has several streets which the visitor could traverse in the ordinary manner. But the charm of details here, there, and up-in-the-air will not permit it. A short ramble down any path leading from the château affords a quaint doorway which got a bit mixed in trying to remember its p's and q's. Then a Francis I dormer of such perfection that Chambord would be envious diverts one up a lane filled with partly fallen architecture. A wall with a crevice reveals a huge monolithic cavern, perhaps an early wine-cellar where Bacchus first inspired triple-sec with its enticing aroma. You may peer into an irresistible ruin, be lost in wonderment when exploring its vaults, and suddenly emerge at quite another level. At the lower end of one of the streets there is a scrupulously scrubbed cottage, where a bent old woman sells post-cards. Her fireplace is one side of the room, smoked a velvety black. If you were in the army and you tell her so, she will produce a sturdy son who was too, and you can have such an enjoyable time that you may not remember that there was some change due on a few post-cards. But madame is one of those honest souls who would not take an unjust sou. She is another pleasant discovery in Les Baux—the simple peasant type uninterested in attempting single-handed to restore the franc to par by unjust extortion from the "millionaire" Americans.

And so, if ever you are in the South of France in the valley of the Rhone, see why the gods once chose Les Baux! Stay at either of the two good hotels, and even Jupiter will be jealous of you. More than that, you will be out of range of the dusty tourist track, although on a still day one might almost fancy he heard the roulette-wheels of the Riviera seaward and to the east. Even on gray days there is a galaxy of color—a David's coat spread over the surrounding hills—which will be a joy to remember when architectural classics are only a duty to recall. In every direction there is a more beautiful mosaic than the best which Cefalu Cathedral has to offer. Each street amid its writhing and its débris holds a new pleasure, of details not sophisticated by constant elbowing with the rule books. As for planning castles in the air, voilà, Messieurs, voilà!



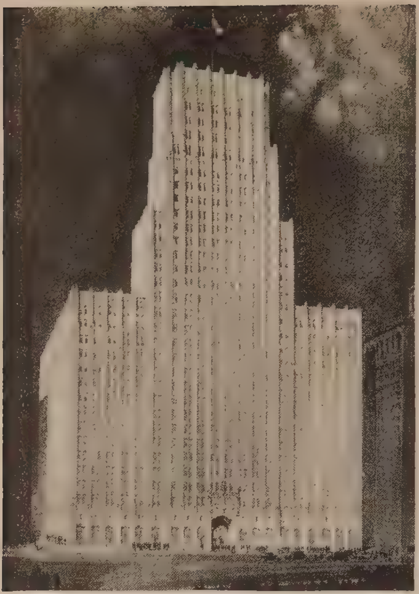
One of the rooms of the monolithic houses, showing a close-up of the stone and the tremendous task its hewing involved. Compared with the figure in the left centre, the clearstory height must be a generous fifteen feet.

Go to Les Baux, even for a couple of hours, and you will know why the gods lived in France!

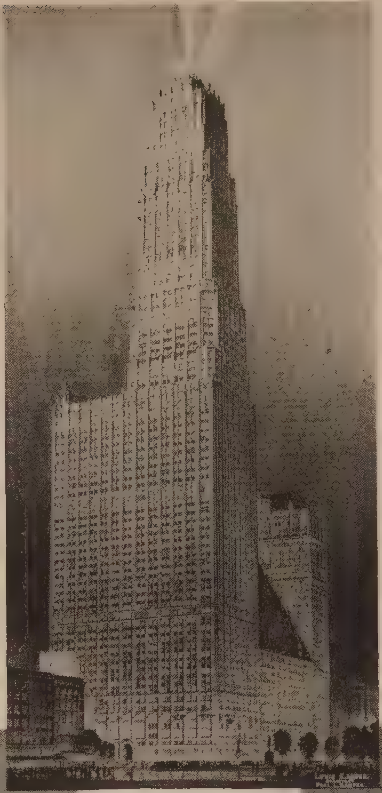


Ramparts, vaults, and ruins of the château—the vault in the centre is a monolith whose size can be estimated by comparison with the door openings in the centre foreground.

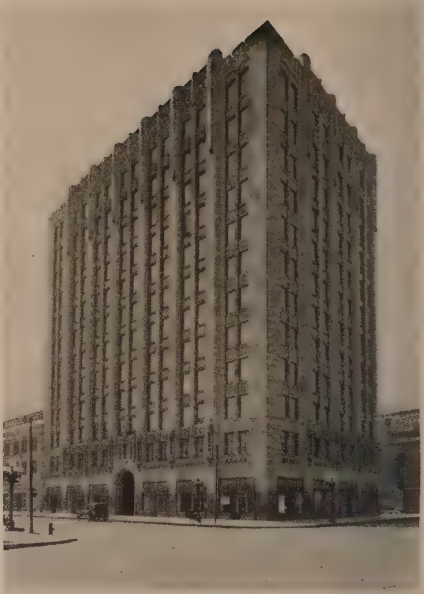
Architectural News in Photographs



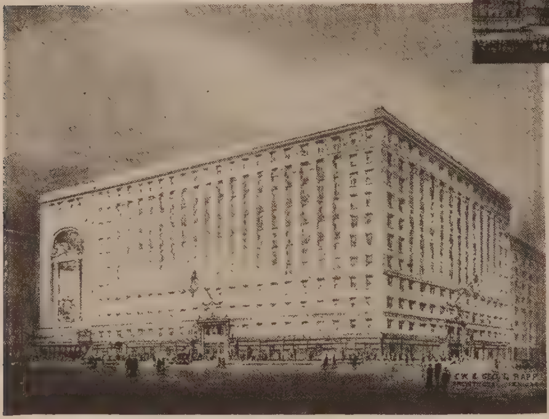
San Francisco is to have a new thirty-story office-building—the Russ Building. George W. Kelham, Architect.



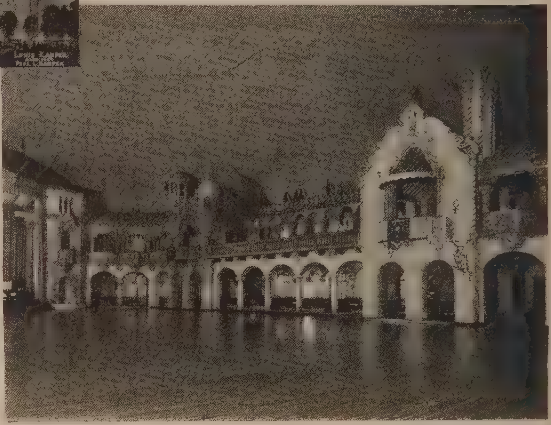
Detroit's bid for the world's tallest skyscraper — the Book Building with its proposed new tower. L. & P. L. Kamper, Architects.



The new Baker Building, Minneapolis, Minn., designed for office purposes by Larsen & McLaren, Architects.

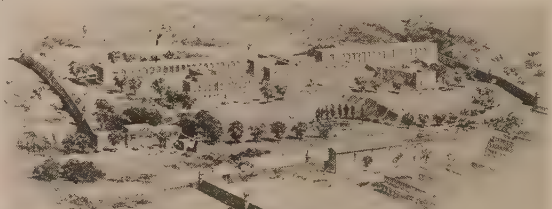

C W & GEO. L. RAPP

The proposed Press Club Building in Washington. C. W. & Geo. L. Rapp, Architects.

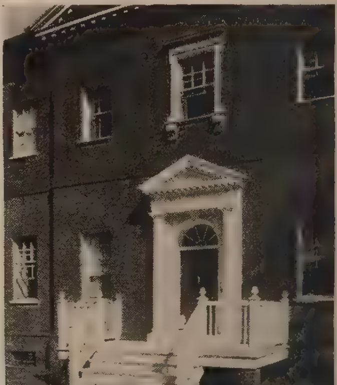


Chicago's latest idea of a dance-floor, the Aragon. Huszagh & Hill, Architects.

Deerfield, Mass., recently held a fête to raise funds for preserving her priceless architectural treasures.



How the new Sing Sing Prison will look, the old one having been condemned long ago. Sullivan W. Jones, State Architect.



Harwood House, a famous treasure of Annapolis, is now owned and will be preserved by St. John's College.

EDITORIAL COMMENT

Vol. LIV No. 5 ARCHITECTURE November 1926

ANTIQUARIANS RAMPANT

NOW that the supply of antique furniture seems to have become more a problem of manufacturing than of search, we are told that the old houses of New England are themselves being dismembered to make a remodeller's holiday. Panelled rooms are removed bodily, old mantels torn from their settings, floors torn up for their wide pine boards, battened doors and their wrought-iron hardware acquired in a steadily rising market. It would be a pity if our admiration for early American craftsmanship leads us into complete spoliation of the originals.

BUILDING TO ENDURE

PORTLAND cement was first produced commercially in the United States in 1872—within the lifetime of many of us. Last year the production of Portland cement reached the amazing total of over 161½ millions of barrels. Meanwhile our production of brick, lime, terra-cotta and our quarrying of stone and marbles have steadily and rapidly increased. The cement industry has not grown at the expense of other masonry; it has drawn all along with it. All of which must be an enormous factor in improving the enduring qualities of American structures. We are too close to the work of our own generation to appreciate this until production facts like these help make the picture clearer.

CELLULAR CONCRETE

SPEAKING of cement, there seem to be indications that we may be about to enter upon an entirely new phase of concrete construction. Up to the present time concrete has been utilized first for heavy mass work in walls; later, with reinforcement, for spans. But, like stone, concrete has the great handicap of its own weight in spans; the reinforcement must supply tensile strength if concrete is to be anything better than a mere heavy lintel.

Quite recently, at least three different methods have been developed for making concrete lighter in weight. One employs a combination of cement, lime, and powdered aluminum which generates gas and accelerates the set, resulting in a cellular structure. Another method involves the formation of soap bubbles within the mass, setting less rapidly but again securing a cellular structure. A third method utilizes a fine aggregate of wax pellets in place of sand, casting the mixture in slabs and then withdrawing the wax by heating. In all of these the aim is lighter weight and greater insulating properties gained through cellular structure. Such material has obvious advantages for partition blocks, floor, and roof slabs. For span work we may soon learn how to overcome concrete's great handicap of weight.

SAND-BLASTING

IT is reported that hygiene enthusiasts of Paris had borrowed a leaf from Pittsburgh's book and were advocating the sand-blasting of Notre Dame's façade. The resulting counterblast of public opinion seems to have proven itself the superior force.

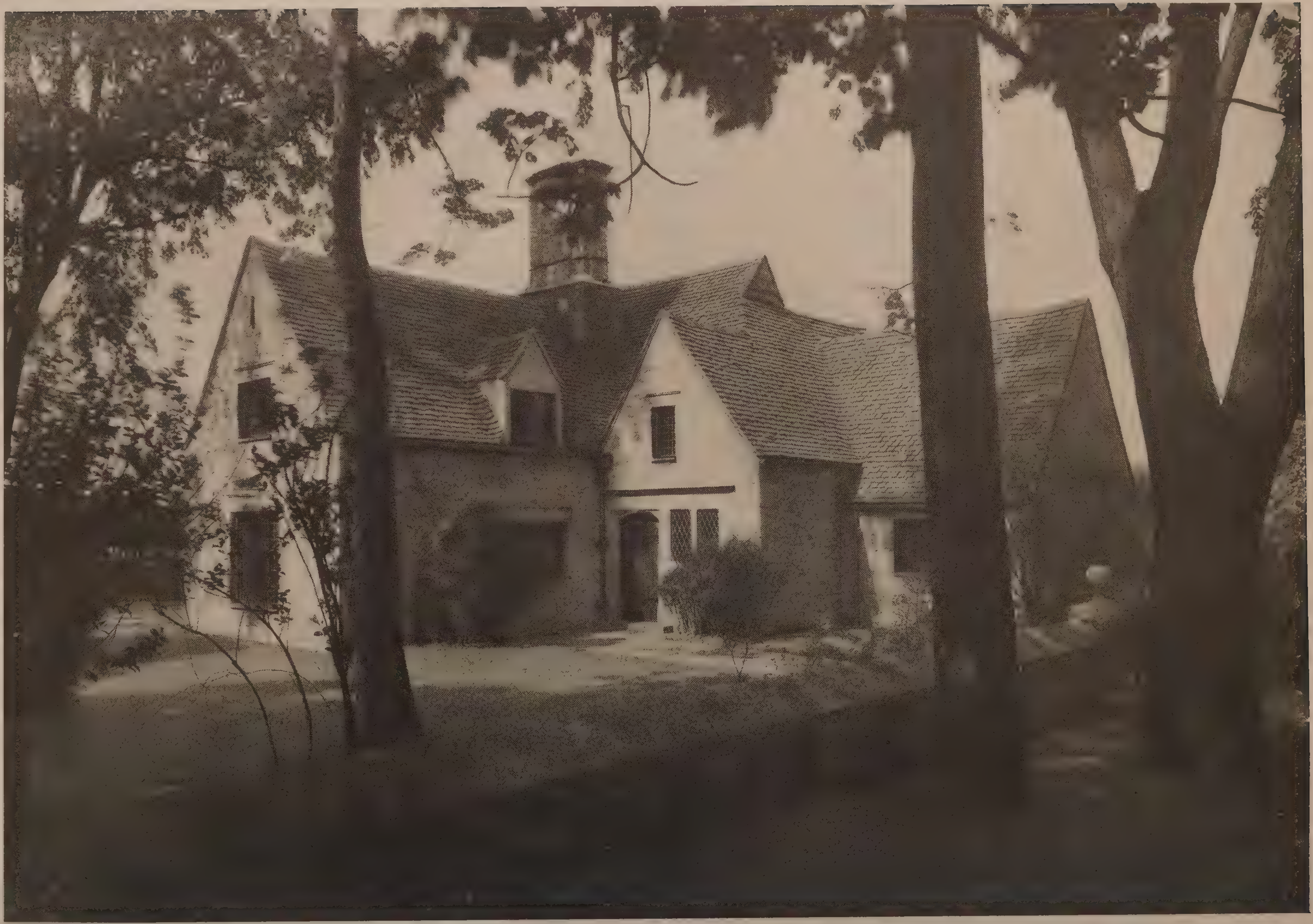
Time and the mellowing effects of air, rain, snow, sun, and frost affect the outer surface of most stonework in ways that are by no means clearly understood. The destruction of the outer thin shell of many stones is much like the destruction of the outer enamel of a tooth, exposing the softer interior to more or less rapid deterioration until the stone can protect itself with a renewed outside shell. The Indiana Limestone industry discourages the use of sand-blasting as a method of cleaning that widely used stone and is endeavoring through research to discover better methods of cleaning. The architect will do well to know his material before employing this keen-edged tool.

TOO MANY BUILDINGS

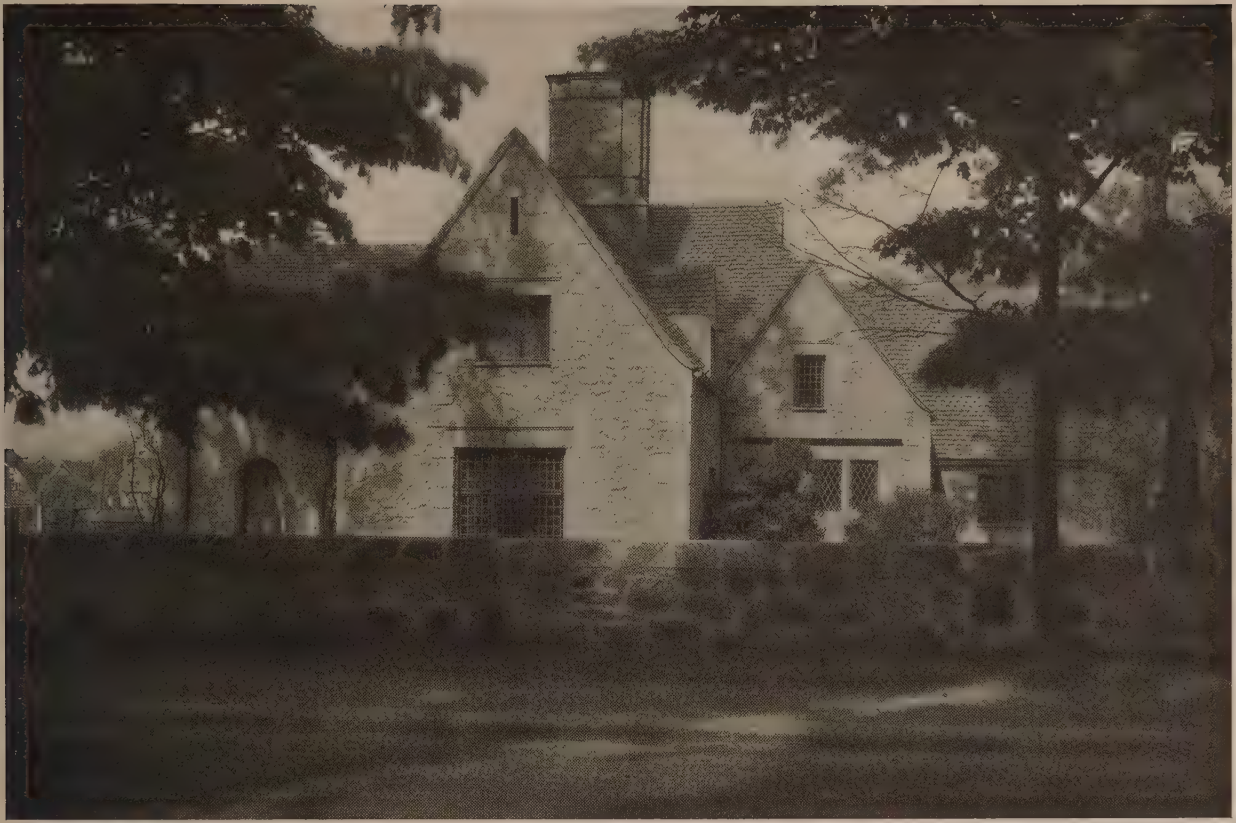
THERE are too many books and too many graves in the world, according to Professor J. F. Thorpe, F. R. S., an English expert in organic chemistry. The growing menace of the latter will no doubt eventually be solved by cremation, and the professor hopes that a judicious exercise of this method may also be applied to our libraries. "And," muses the architect, "why stop there?"

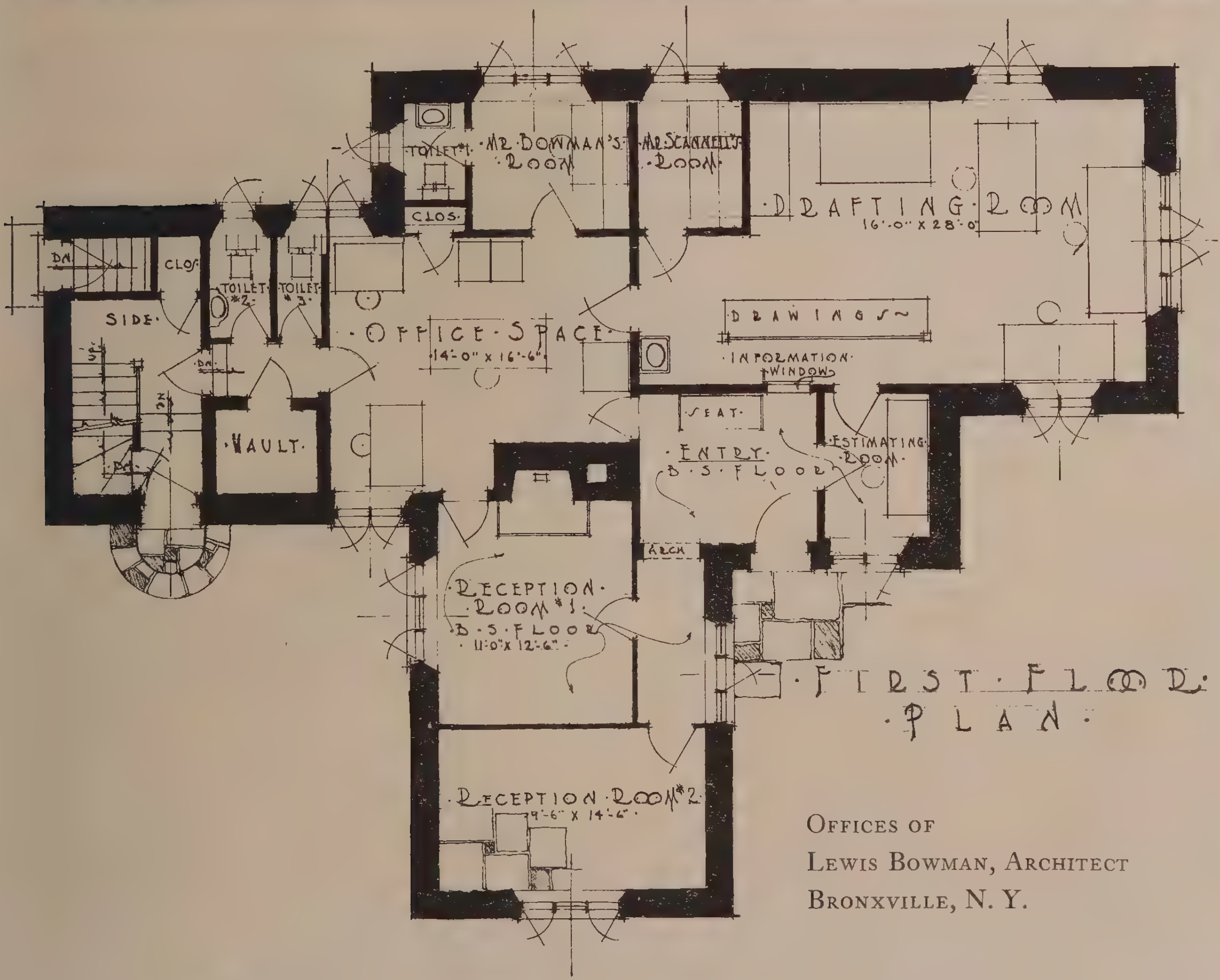
FRANK W. FERGUSON

THE death, on October 4, of Frank William Ferguson, long a partner of Ralph Adams Cram and the late Bertram Grosvenor Goodhue, removes another one of the strong pillars of the architectural profession in America. Mr. Ferguson was born in Portsmouth, N. H., November 3, 1861, and received his technical education at Dartmouth with the class of 1887. He was made a Fellow of the American Institute of Architects in 1910. More of an engineer than a designer, and always a quiet and able administrator of the business side of architectural practice, Frank W. Ferguson's share in the great achievements of his firm naturally received less public attention than the activities of his partners. His contribution was none the less an indispensable part of their well-correlated efforts—a power that assured conscientious craftsmanship and the faithful execution of everything undertaken by the office.



Offices of Lewis Bowman, Architect, Bronxville, N. Y.





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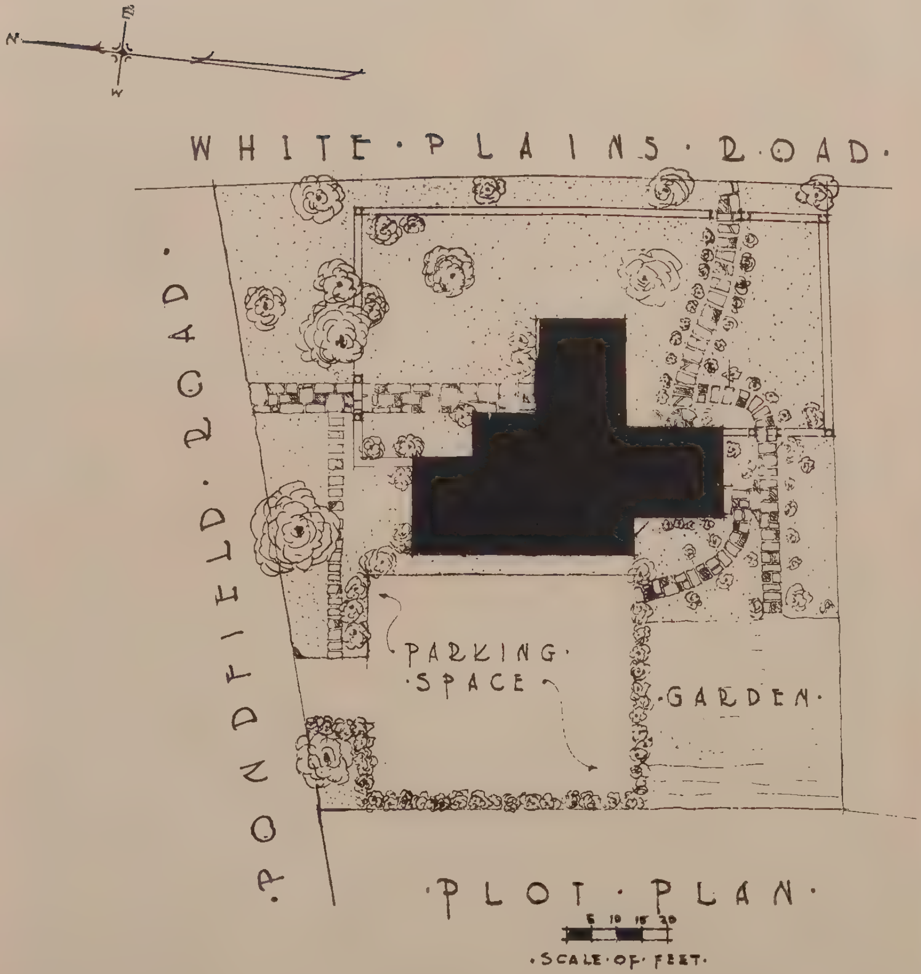
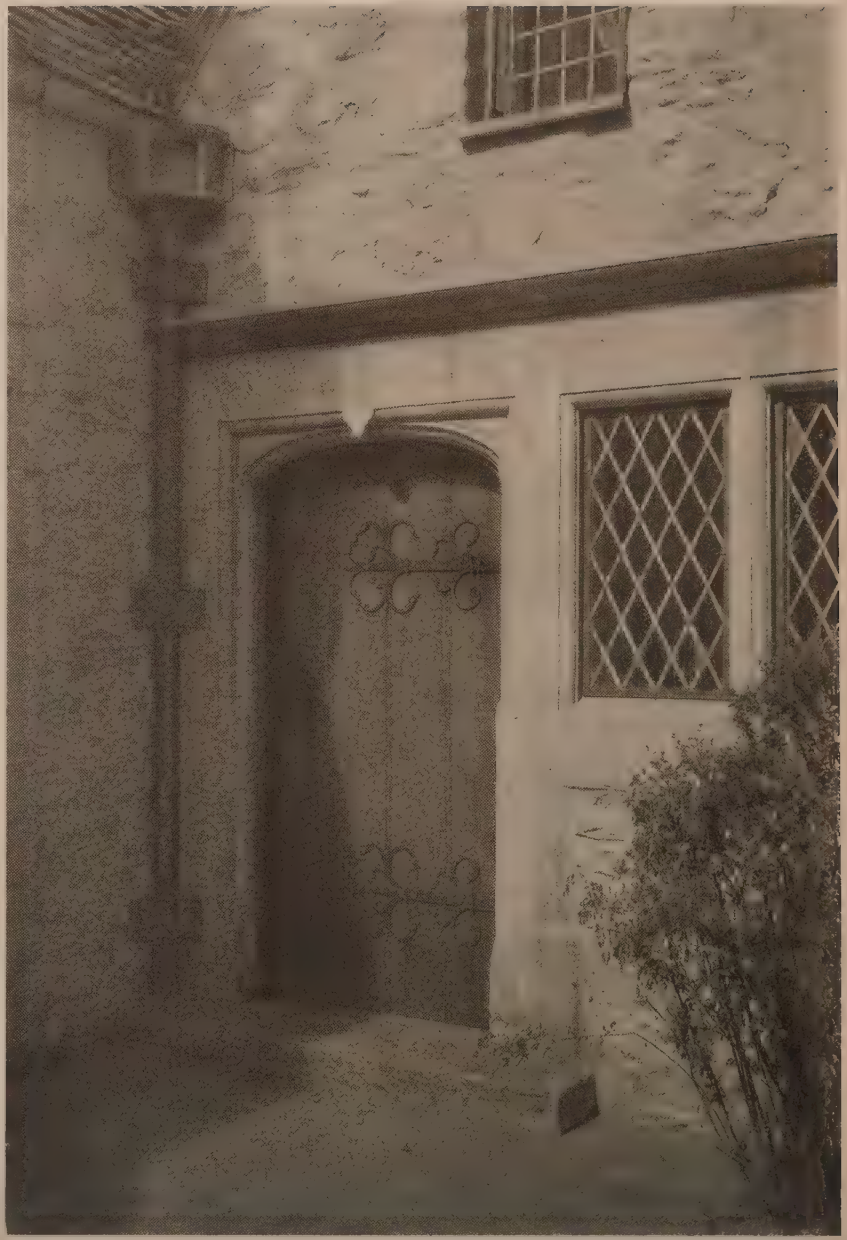




Offices of Lewis Bowman, Architect
Bronxville, N. Y.

A SYMPOSIUM ON THE SUBJECT OF COMPETITIONS

The frank opinions of architects upon a subject that never has been settled to the satisfaction of all

A competent adviser and a fixed programme

I do not object to going into a competition for a building to be used for public purposes where there is a competent professional adviser, a fixed programme as to requirements, and where there is an assurance that the award will be made strictly upon the merits of the submission and as attested to by the adviser.

I do object to, and will not enter, any competition for any building where a committee gives permission to any architect to submit plans without regard to a fixed programme, and also where the architect is more than likely to submit a cubic-foot cost lower than others, thereby obtaining a commission without regard to the merits of his design.

In general I do not altogether approve of competitions, for I believe that any conscientious architect is able to satisfy any client or committee with the various studies he is likely and always willing to submit.

Harold F. Adams,
New York City.

Why not a competition to select "design"?

The usual architectural competition is established for the "selection of an architect." And there, at the very start, the total failure of the result is assured. If one really wants to select an architect for some *big* building by competition, one has only to put the names of any ten or a dozen *big* offices, employing at least twenty draftsmen each, in a hat, and ask a blind policeman to draw out a name. The result of the labors of this otherwise useless public officer would fulfil all the usual requirements of the competition to "select an architect" and would save a lot of time and money for the ten or a dozen *big* offices concerned.

If, on the other hand, the usual architectural competition were established for the "selection of a *design*," all sorts of wonderful things *might* happen. Such a competition would of course have to be an *open competition*, for who knows where genius has his hiding-place? The result of the competition for the selection of a *design* would inevitably be the discovery of an *architect*. But how many architectural advisers are sufficiently free from the limitations of habit to be able to draw a programme that would really invite a *design?* And how many juries might be found whose members would have the imagination to recognize a *design* when they saw one, or the courage to premiate it if they recognized it? Alas, not many!

The architectural competition "to select an architect" has little possibility of producing anything other than the usual rehash of ancient, mediæval, or Renaissance motives by a clever draftsman, and the swelling of the bank-account of an already prosperous architect employing at least twenty draftsmen. The architectural competition "to select a *design*" *might* discover genius. It *might* produce a National Architecture that expresses the real spirit of democracy that this nation is supposed (and was originally intended) to typify. It *might* atone for the hundreds of fake "domes" and the forests of classic columns that spread the symbols of an alien imperialism over the supposedly democratic landscape of ours. It *might* prove that Lady Beauty has only been *asleep* since the thirteenth century—that she has not really *died*. It *might* be a *wonderful thing!*

Of course some "old fogy" steeped in the borrowed wisdom of the Renaissance, or stuffed with the "science" of to-day, will object that the competition "to select a *design*" might award the plum to some genius in design who had not the necessary skill and experience in construction. But what of that? Specification writers and superintendents of construction can be employed for eight-hour days, six days a week, at sixty dollars a week and up. Designers—creators of beauty—cannot be hired nor bought. They are the personal handiwork of the gods themselves, and often enough, alas, they are never found out save by the gods who fashioned them!

Of the competitions "to select an architect" we have had too much and too many; let us have no more of them. Of the competition "to select a *design*," have we ever had any? Why not try one out?

Harry F. Cunningham, A. I. A.,
President Florida Chapter, A. I. A.,
St. Petersburg, Fla.

To the benefit of neither owner nor architect

As a rule the selection of an architect by competition results to the benefit of neither the owner nor architect.

The prospective client naturally assumes that he is getting the benefit of the services of several architects at a small cost, and of course thinks he is getting something cheap, not realizing that it may cost him much more in the end.

The practitioner who has the experience in designing buildings of the type required cannot generally give the necessary time and attention to competitive drawings without neglecting some of his actual commissions. Who would think of asking a number of physicians to submit their proposed method of treatment to a patient so that he may select the one that suits him best? Select the architect on his reputation and have him work out your problem with you.

An architect's services are personal, and many items enter into the solution of a problem. From the architect's standpoint it is usually a gamble pure and simple, and the fellow who submits a beautiful picture, which in reality can never be worked out in execution, often lands a commission.

To one just starting in practice, competitions offer a chance, but should a client intrust the expenditure of thousands of dollars to a tyro?

Where members of a committee sponsor various architects, a competition is often necessary. In that case a competent professional adviser should be selected and the competitors receive a fair remuneration.

Altogether too much time and money is wasted on competitions.

Justin M. Uffinger,
of Mowbray & Uffinger,
New York City.

Competitions contribute to better architecture

Competitions that are judged purely on the merit of design and adaptability of plan to proposed uses have my hearty approval. Many of our greatest architectural firms of to-day would probably not have had such rapid rise to the enviable positions which they now hold if they had not won their first commission of importance through honest competition.

Cheap wire-pulling, price-cutting, so-called competition, such as is frequently held and often where work of importance is involved, should be condemned and discouraged.

It is my opinion that competitions held ethically and honestly, even though not governed by any set rule of procedure, are practical, successful, and contribute to better architecture.

Delbert K. Perry,
President Connecticut Chapter, A. I. A.,
New Britain, Conn.

Competitions should be avoided whenever possible

I wish to state that it is my firm belief, based on many years of experience, that competitions should be avoided whenever it is possible to do so. Only in very exceptional cases do I consider them to be of value, and then only when they are closed competitions with a large honorarium awarded to carefully selected competitors.

Competitions, in my opinion, are of little or no benefit to the owner. This is especially true in cases of domestic or ordinary commercial work. Designs and plans made for such problems are rarely carried out in actual construction. The winner of the competition, after he has received the order, nearly always, in consultation with the owner, entirely alters his scheme to meet conditions which were not considered in the competitive drawings.

In addition to this, the money expended by the various architects, and which is a dead loss to all of them except the winner of the competition, is nearly equal to the commission paid by the owner for the entire completion of the work.

Competitions greatly disorganize the office force and seriously affect the actual work being carried on in other projects under construction.

Most of the leading architects, I believe, strongly favor, even in monumental work, the direct selection of an architect by a commission appointed for the purpose. After much discussion, this was done by the Fine Arts Commission for the Lincoln Memorial, and with very satisfactory results.

Often, however, competitions are required by the laws of the Federal Government or the States, and therefore cannot be avoided.

Many of the younger architects favor competitions as a means, should they be successful, of bringing them into rapid prominence in the profession. However, for a young firm that has had no practical experience, to win a large competition is, perhaps, one of the most unfortunate things that can happen.

Goodhue Livingston,
New York City.

Characteristics that lead to competitions

The competition of architects for a possible commission is a response to two very human characteristics. First, the gambling instinct, which reaches out for the two birds in the bush as against the one in hand; and, second, the desire to get something for nothing.

It cannot be fairly argued that either is justified from a professional standpoint, and in time this form of attempted business getting will, no doubt, be abandoned and the architect will be selected, as is the doctor or lawyer, on the basis of his demonstrated skill and professional reputation.

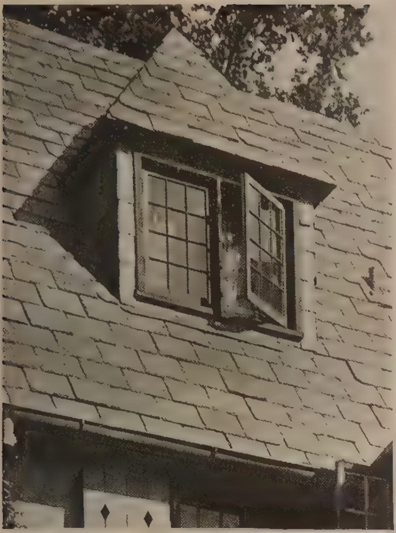
While much has been done to improve the standing and fairness of architectural competitions, the fact remains there can be no assurance that an architect possessing the necessary technical, construction, and executive experience and ability will be secured through the selection of even the most meritorious competitive drawings, which, at best, can be considered simply as preliminary small-scale sketches, perhaps cleverly camouflaged by attractive pictorial rendering.

Aside from his ability as a designer, the importance of the business side of the architect's contribution to the construction of a building, as well as his practical experience and ability to co-ordinate the mechanical and structural work in the field, should receive the most careful consideration in the selection of the architect for any particular work. Such consideration finds no place where the selection of the architect is left to the happy chance of assuming the author of the most acceptable competitive drawing must, of necessity, combine all the elements of professional skill, training, and experience so needful to the successful completion of any building enterprise.

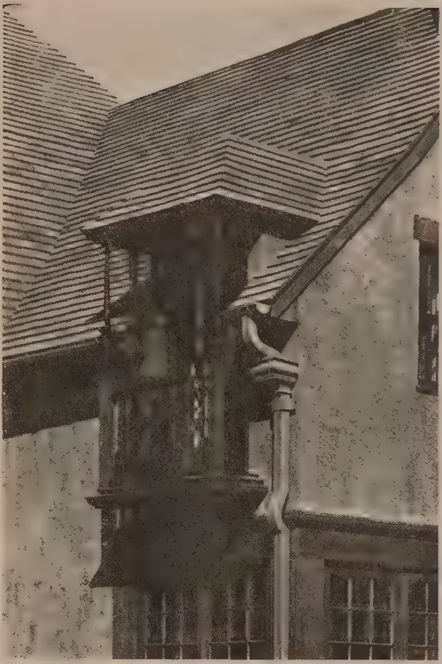
Theodore Irving Coe,
of Carrère & Hastings,
New York, N. Y.

The American Institute of Architects has issued a Code which furnishes information as to the best methods of conducting architectural competitions; also a form of Competition Programme, containing those provisions which the Institute considers essential to the fair and equitable conduct of a competition.

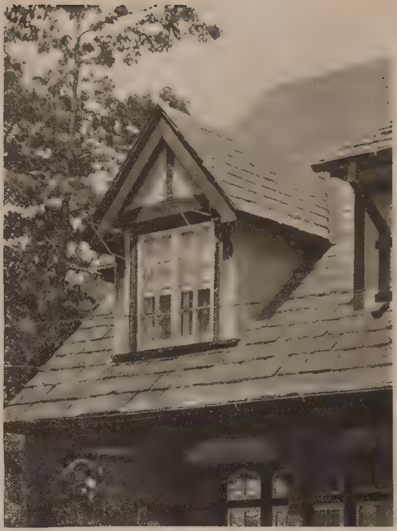
We would be glad to send these two forms to readers of Architecture *who will ask for them.*



LEWIS BOWMAN, ARCHITECT



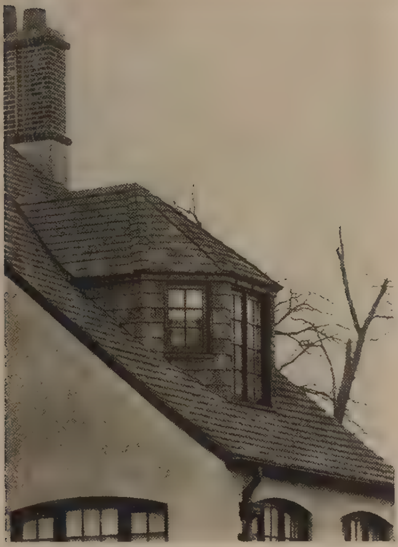
POLHEMUS & COFFIN, ARCHITECTS



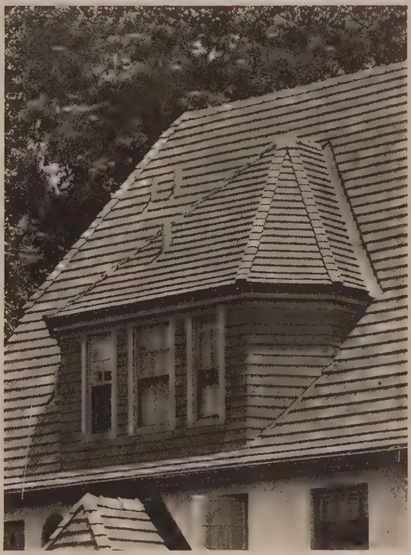
S. A. GUTTENBERG, ARCHITECT

DORMER WINDOWS

THE FIRST OF A SERIES OF PORTFOLIOS ILLUSTRATING SOME ARCHITECTURAL FEATURES OF VARIABLE DESIGN. OTHER SUBJECTS, TO FOLLOW IN EARLY ISSUES, ARE: SHUTTERS AND BLINDS, STAIRWAYS, PANELLING, AND TEXTURES OF STONEWORK AND STUCCO.



GRANVILLE W. DEXTER, ARCHITECT



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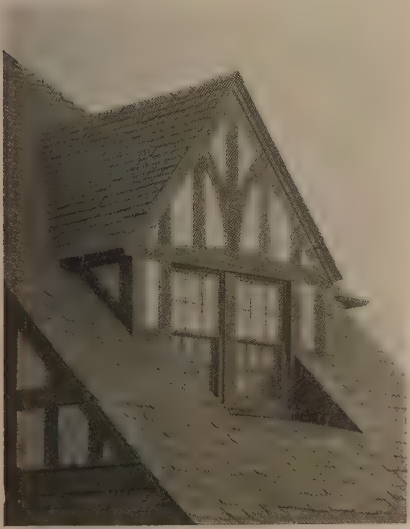
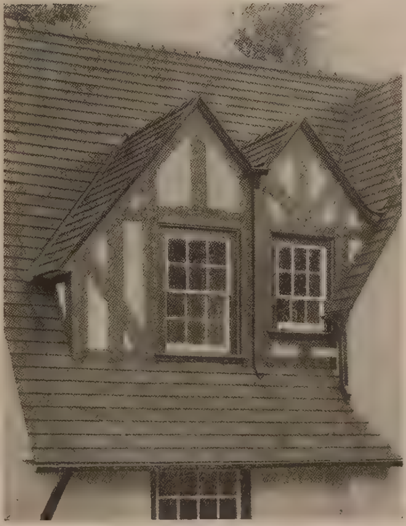
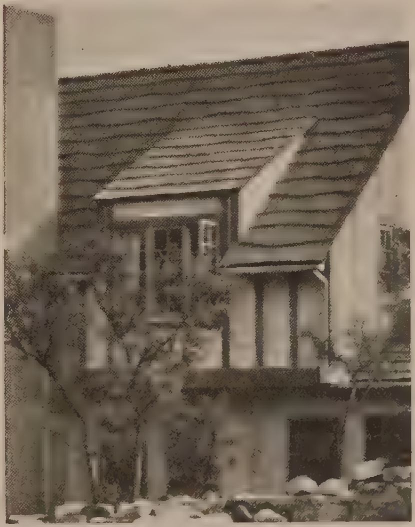


WALLACE & WARNER, ARCHITECTS



WALLACE & WARNER, ARCHITECTS



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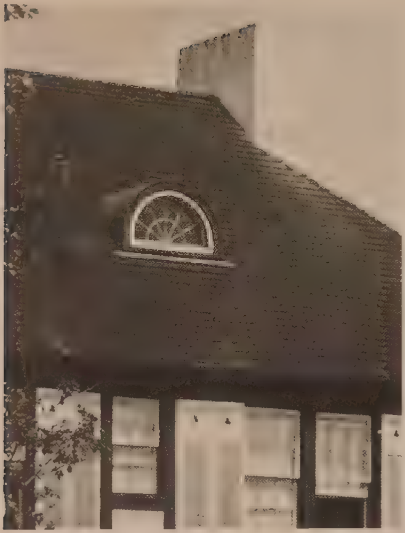
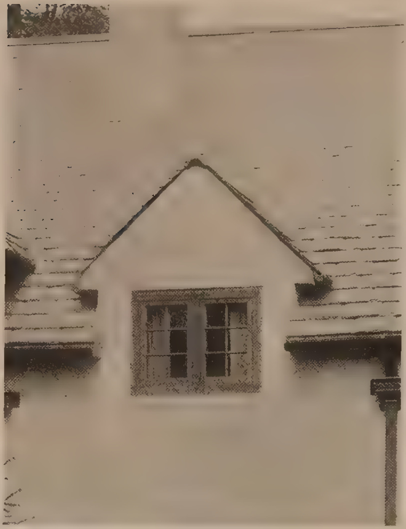
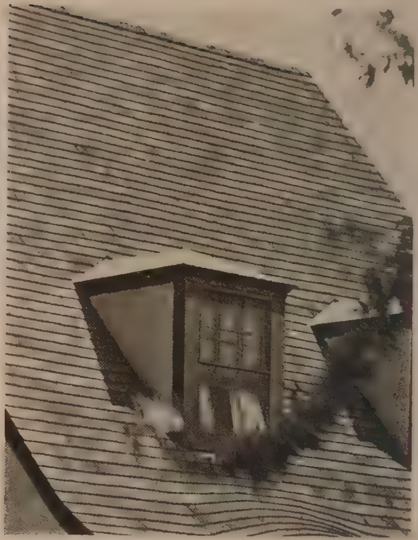


BATES & HOW, ARCHITECTS



ANDREW J. THOMAS, ARCHITECT



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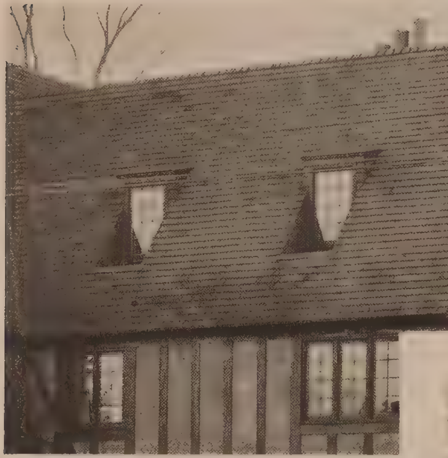
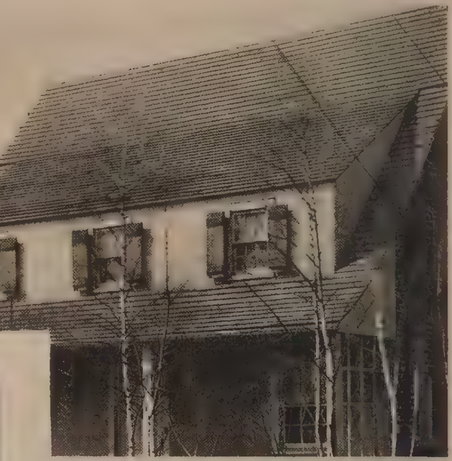
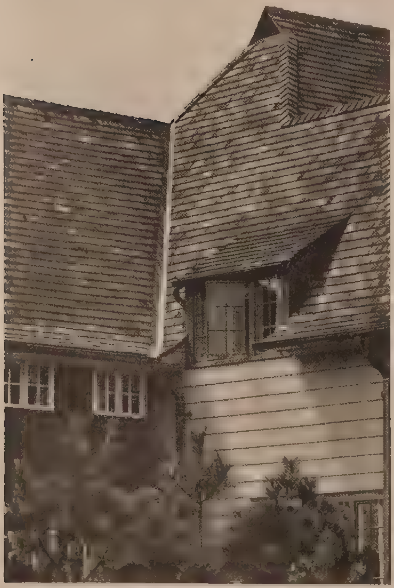


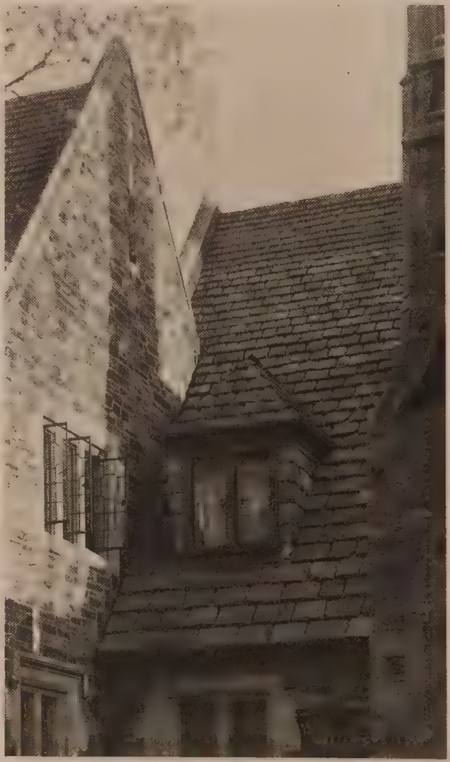
HALF-RECESSED TYPE



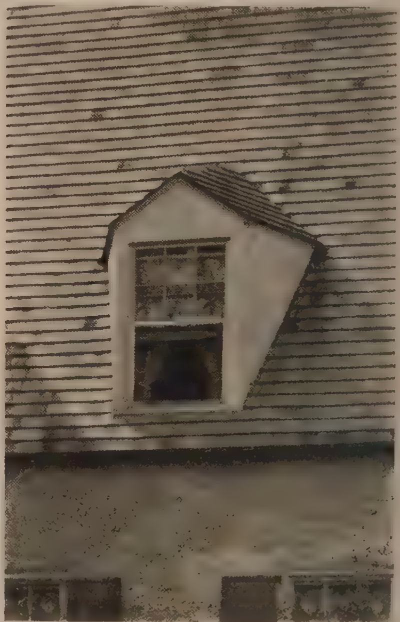
FREDERICK T. WARNER, ARCHITECT



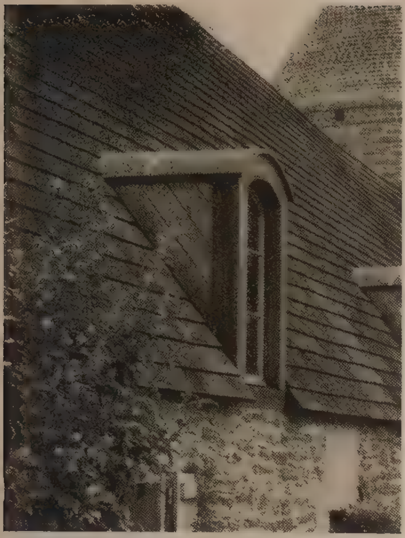
PARK & MORGAN, ARCHITECTS



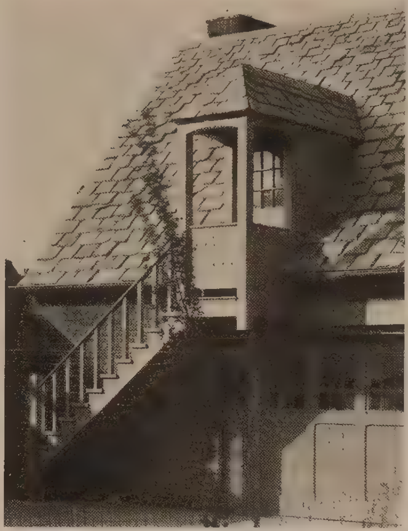
CRAM & FERGUSON, ARCHITECTS



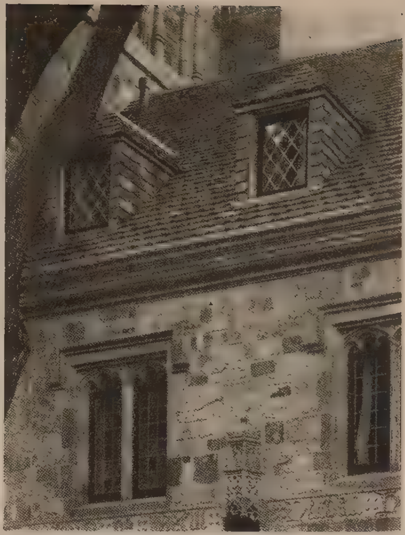
TILDEN & REGISTER, ARCHITECTS



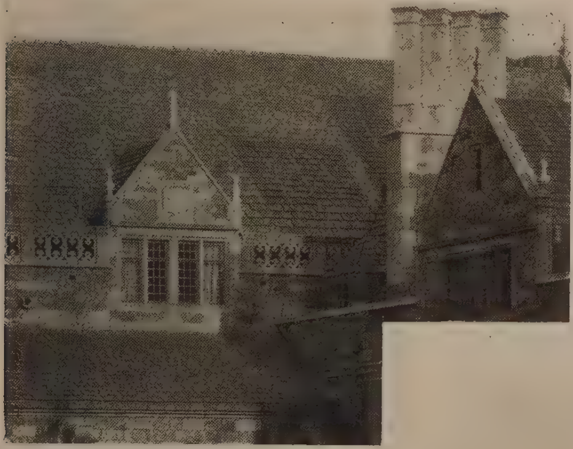
MELLOR, MEIGS & HOWE, ARCHITECTS



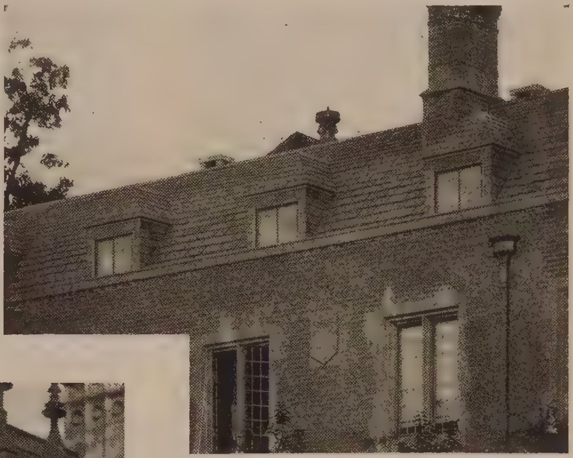
DUNCAN LEE, ARCHITECT



JAMES GAMBLE ROGERS, ARCHITECT

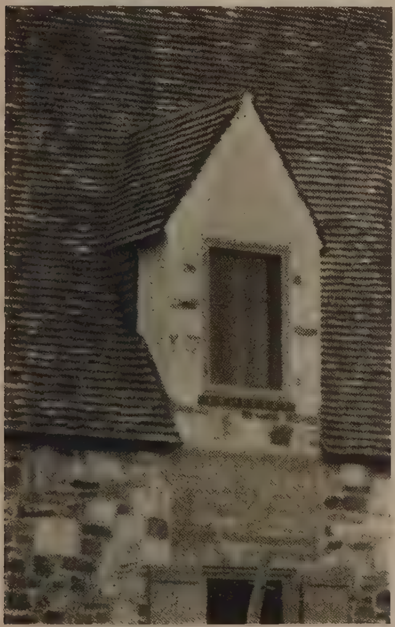


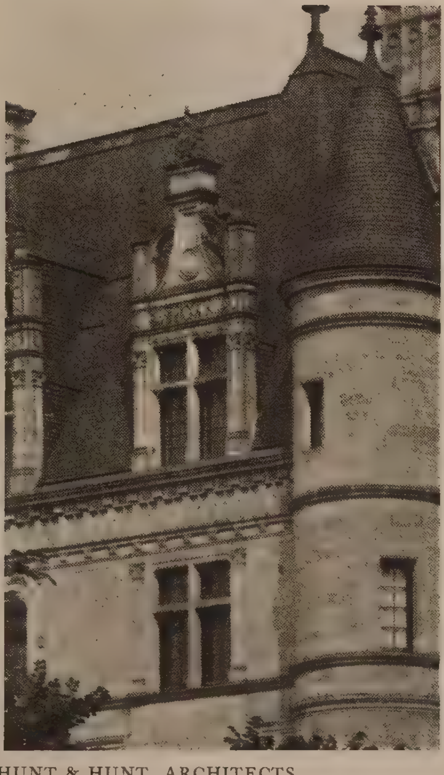
YORK & SAWYER, ARCHITECTS



DELANO & ALDRICH, ARCHITECTS

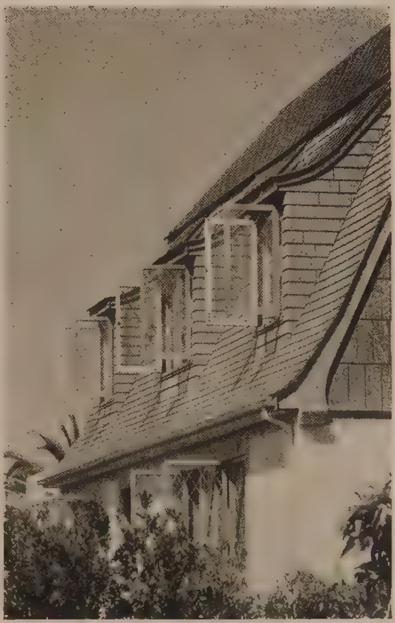
MELLOR, MEIGS & HOWE, ARCHTS

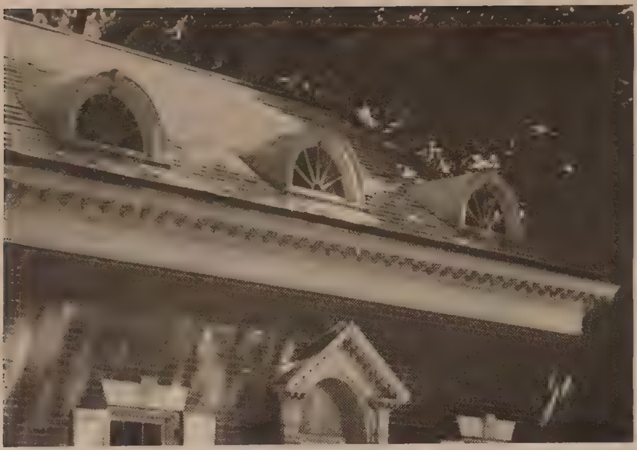




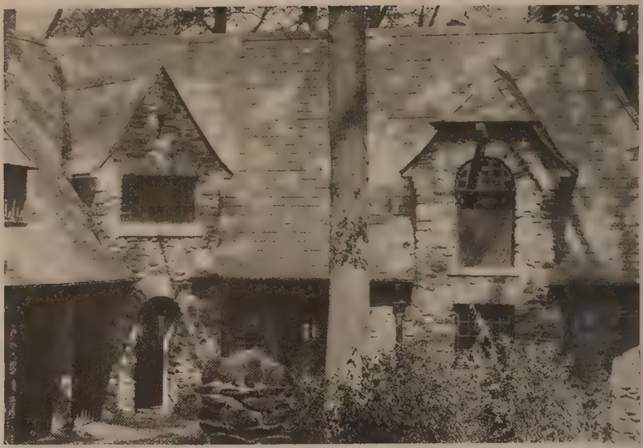
HUNT & HUNT, ARCHITECTS

E. W. NEFF, ARCHITECT

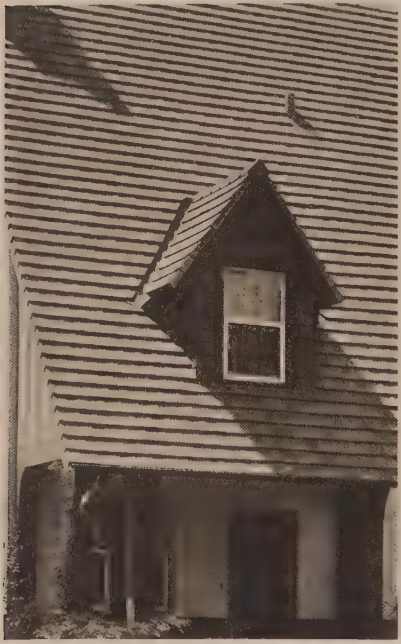




HEATHCOTE M. WOOLSEY, ARCHITECT



BATES & HOW, ARCHITECTS



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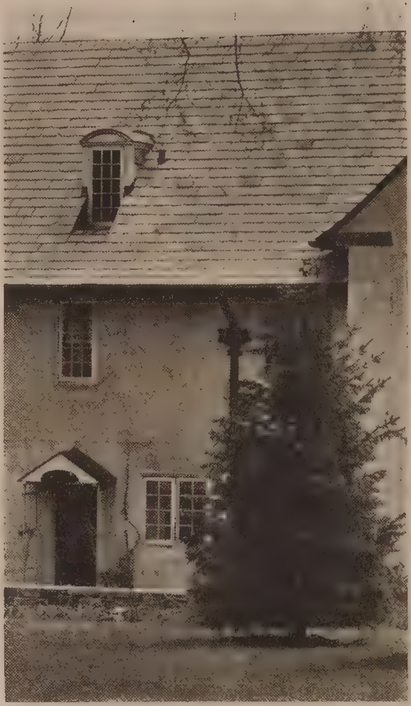
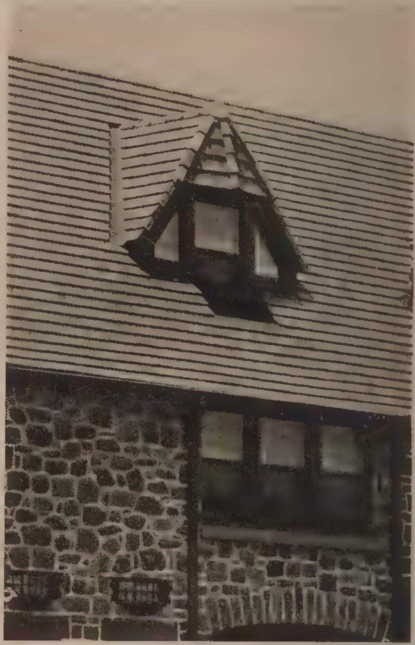
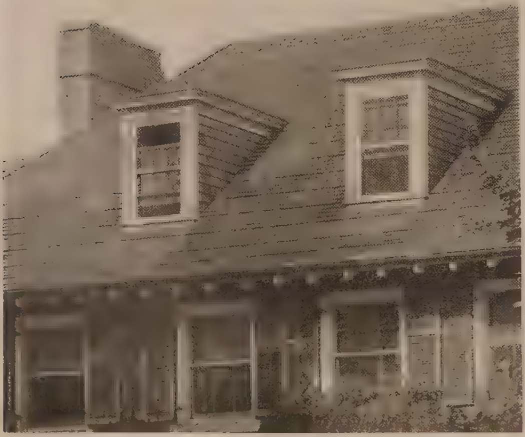


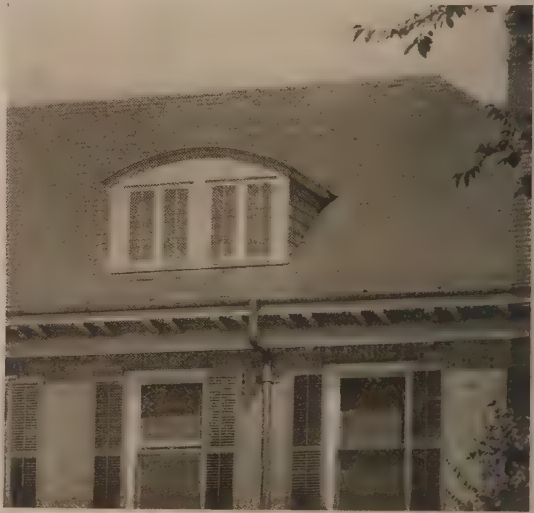
PARK & MORGAN, ARCHITECTS



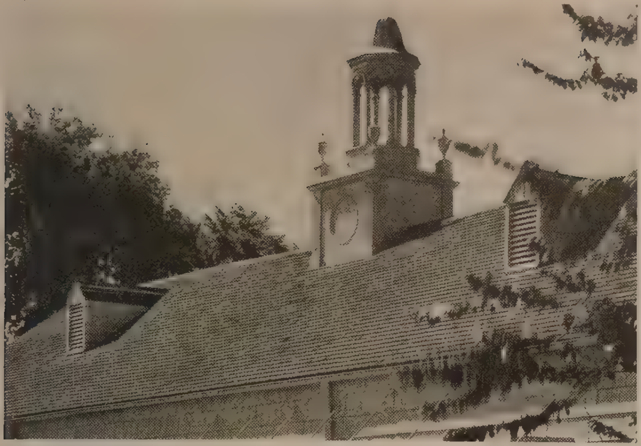
ALBRO & LINDEBERG, ARCHITECTS

FLAT-ROOFED TYPE

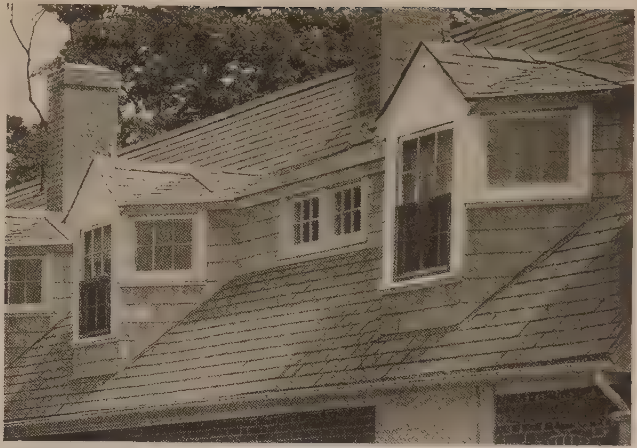




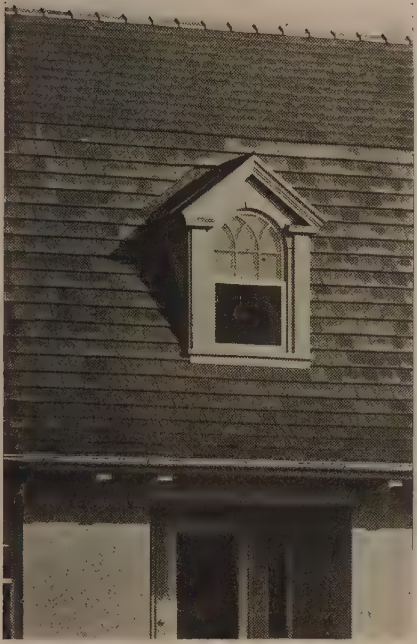
DOUBLE CASEMENTS WITH SEGMENTAL ARCH ROOF



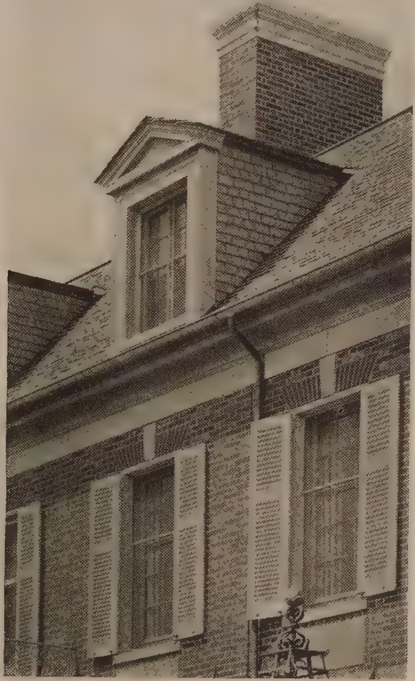
ALFRED HOPKINS, ARCHITECT



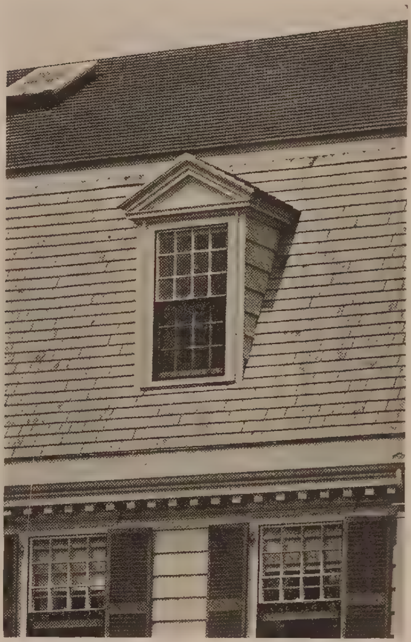
ANDREW H. HEPBURN, ARCHITECT



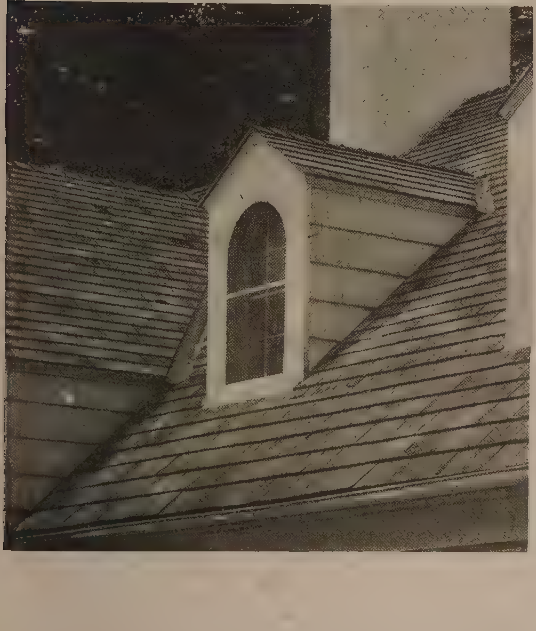
SAGE FOUNDATION HOMES



CHARLES A. PLATT, ARCHITECT

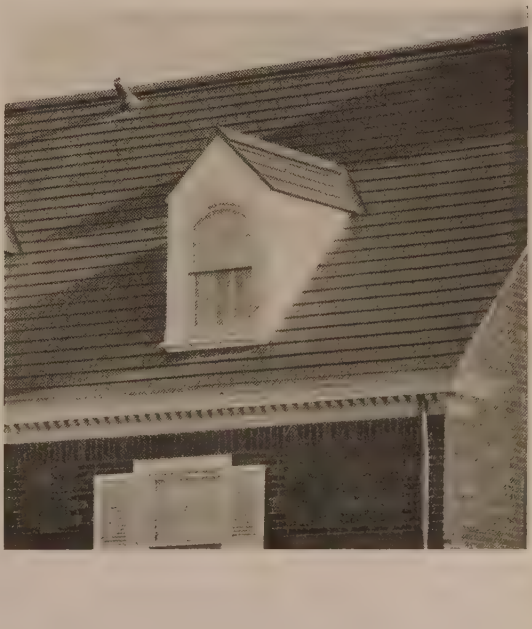


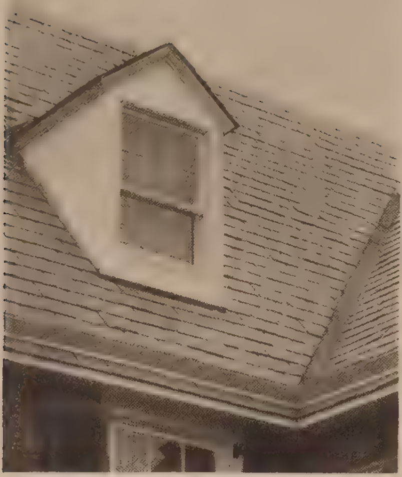
A. P. LITTLE, ARCHITECT

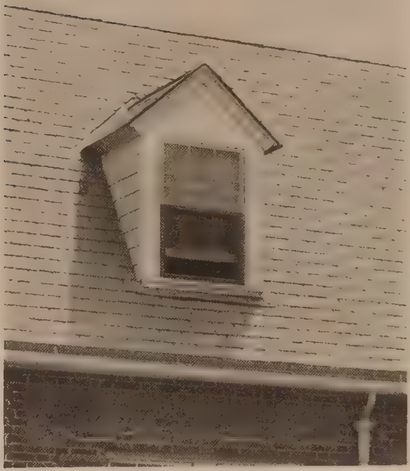


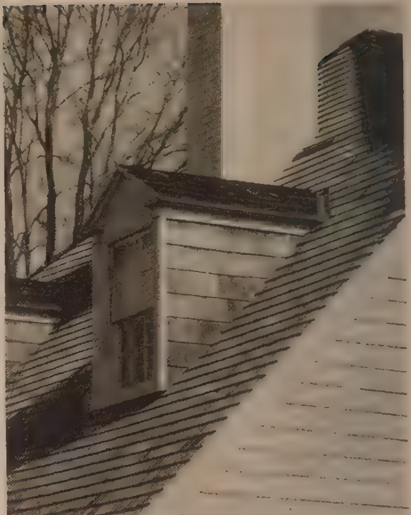
EDWARD S. HEWITT
ARCHITECT

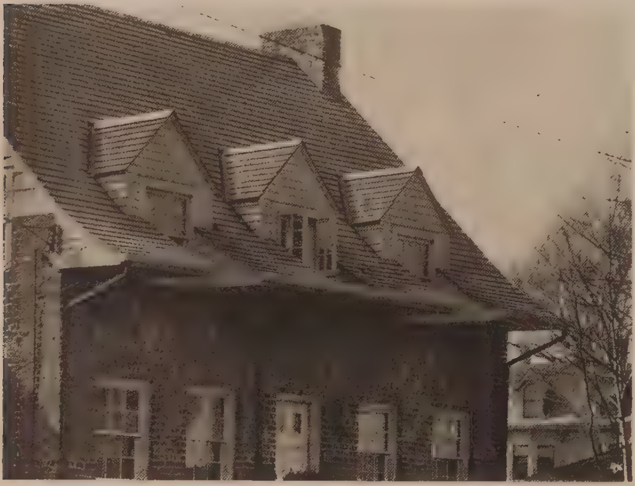
FRANCIS T. NELSON
ARCHITECT




H. LOUIS DUHRING, ARCHITECT


ANDREW H. HEPBURN, ARCHITECT


HENRY HOPKINS, ARCHITECT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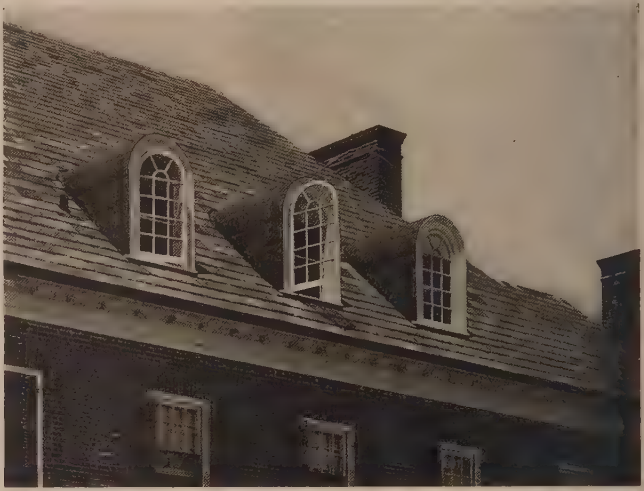
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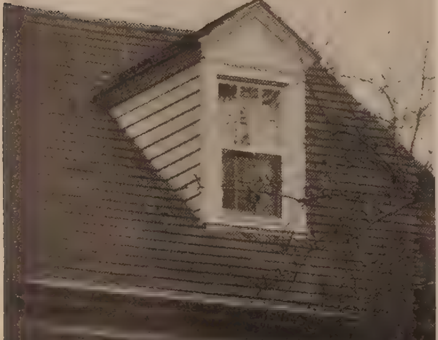
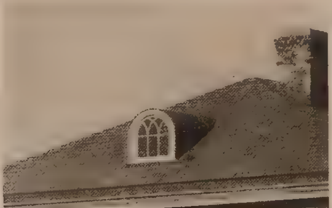
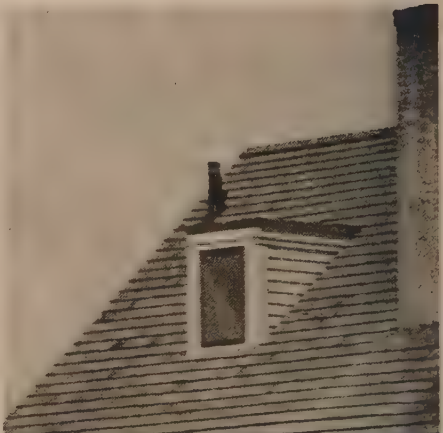
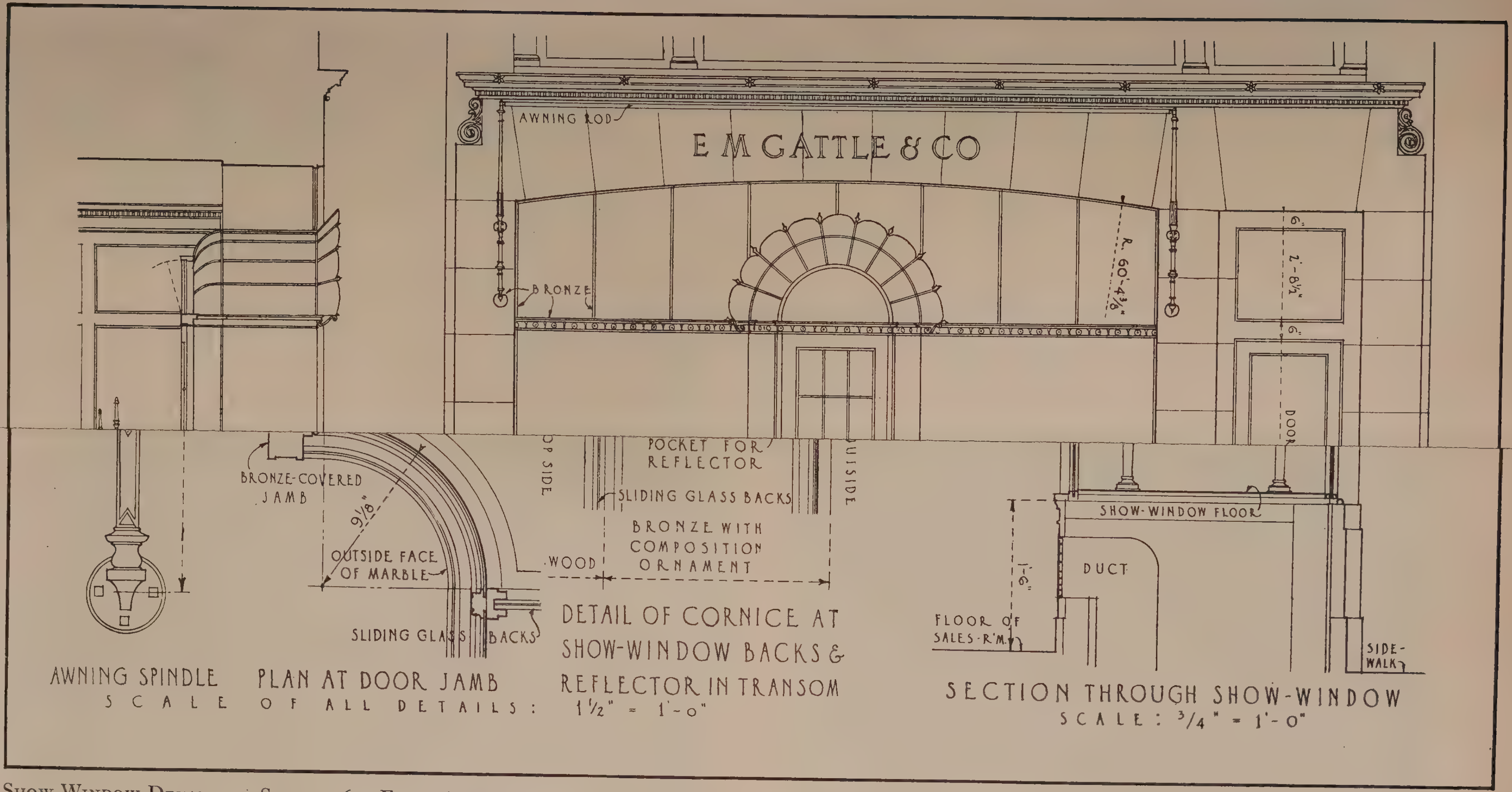

WALLACE & WARNER, ARCHITECTS

EDMUND B. GILCHRIST, ARCHITECT

McKIM, MEAD & WHITE,
ARCHITECTS



Show-Window Details of Shop at 630 Fifth Ave., New York

Drawn by Gerald K. Geerlings

Starrett & Van Vleck, Architects

NOTES

Shop Front, 630 Fifth Ave., New York

The late John Wynkoop, of New York, in conducting a course in the "Theory of Architecture" at the University of Pennsylvania, was accustomed to cite the Gattle store-front as one of the best examples of good business psychology for the small shop without the show-window back. His contention was that in making the ceiling follow the line of the outside arch, the passer-by felt himself already in the shop, whereas had the ceiling been several feet above the exterior arch, an unconscious barrier would have existed.

Bottom of show-window, 1′ 8″ above sidewalk; glass, 6′ 10½″ wide; 5′ 8″ high.

Window-frames, settings, transom, and cornice of bronze.

Show-window illuminated by reflector concealed in transom.

Display table with bronze legs and glass top, 1′ 2½″ above floor to finish top; 2′ wide; 6′ 3″ long.

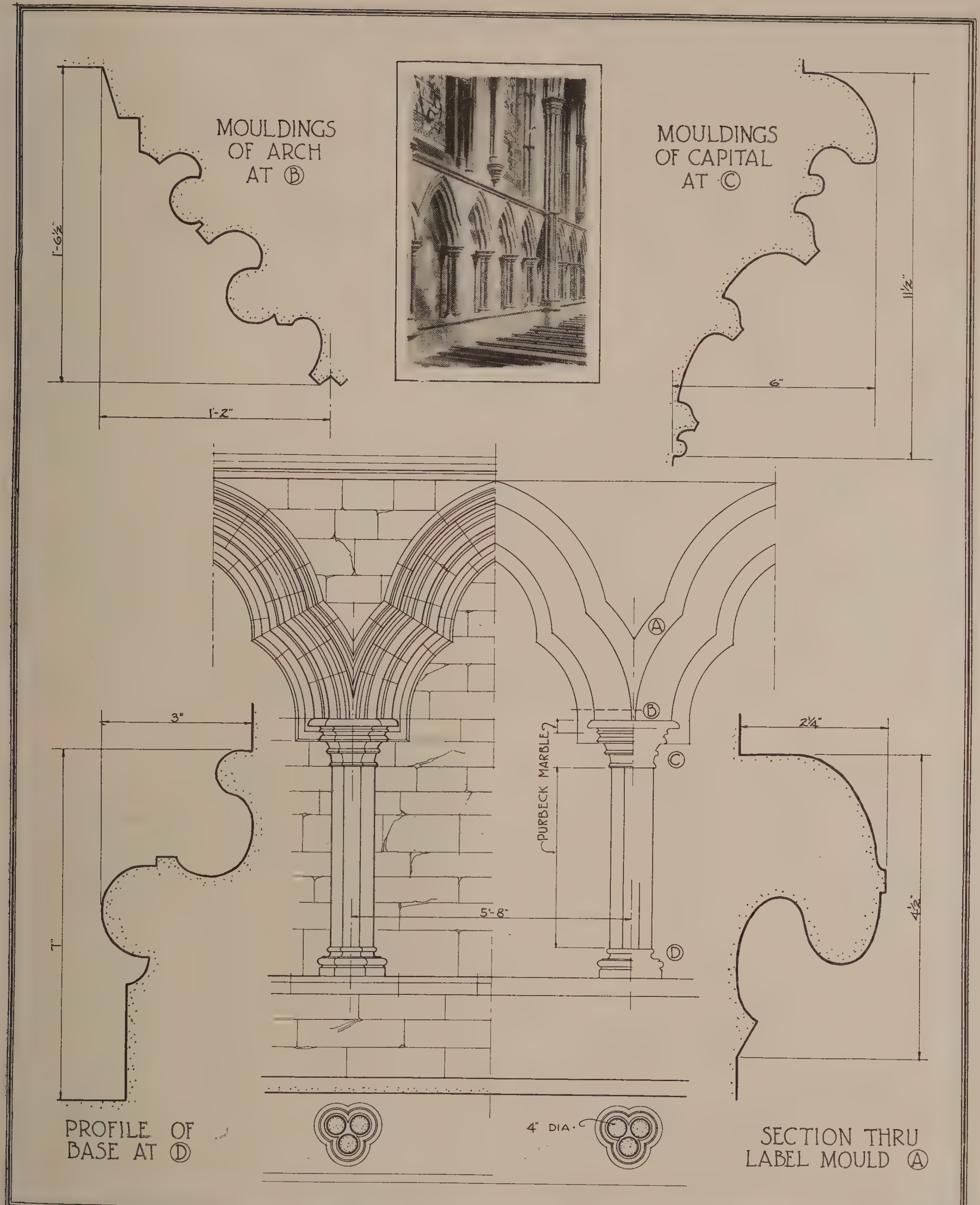
Marble floor at entrance; marble saddle.

Entrance-door, 3′ wide; 7′ 4″ high.

Inside finish floor, 2″ above sidewalk.

This is the first of a series of measured drawings by Mr. Geerlings, of which the subjects chosen will be among those occurring in modern practice. The intention is to select the best available solutions of problems that are likely to be troublesome to the architect who has not met similar ones before, and to reproduce these painstakingly, with photographs and helpful data.

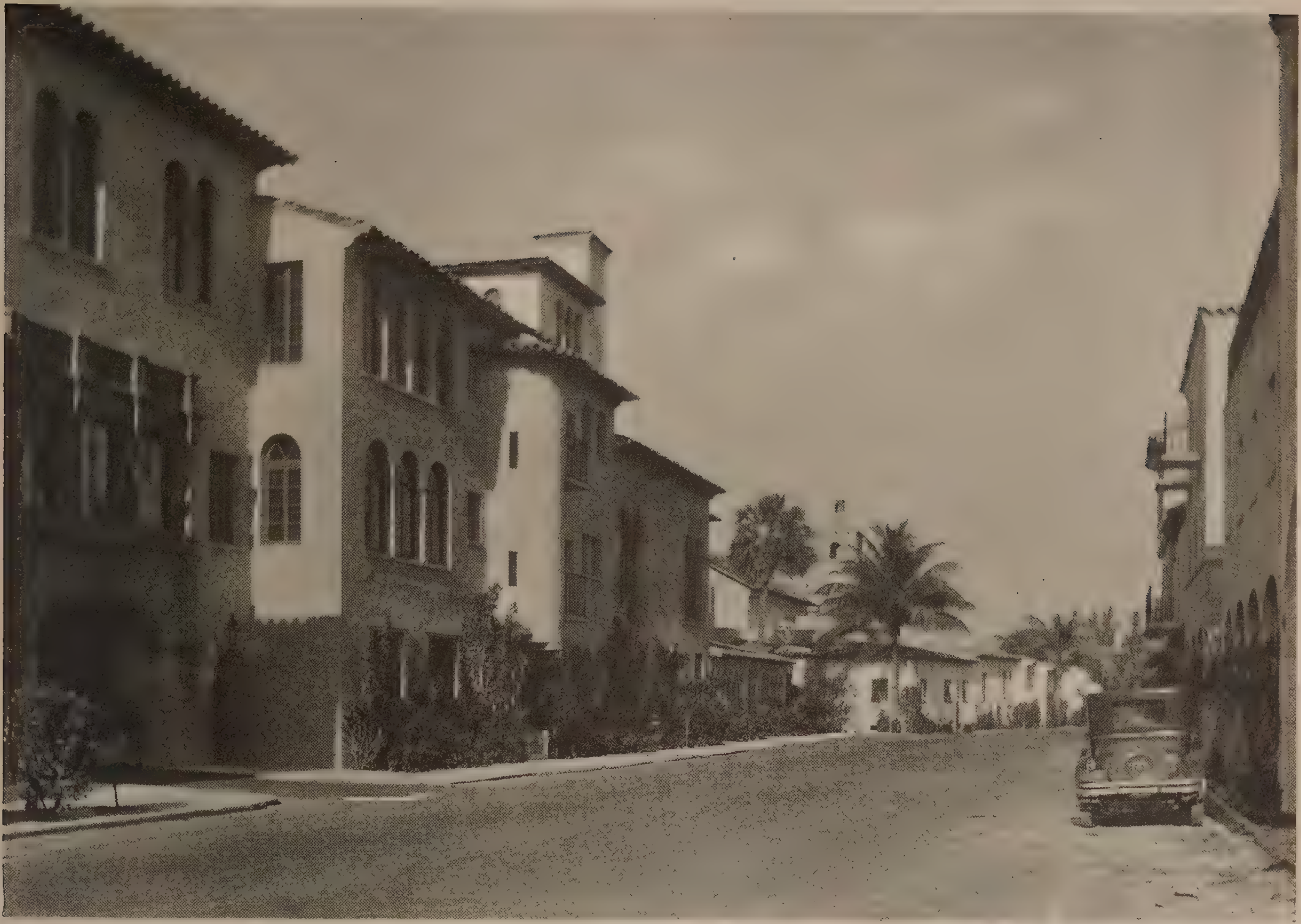
The Editor will appreciate suggestions as to subjects that would be welcome in this series, and also information as to unusually successful solutions.

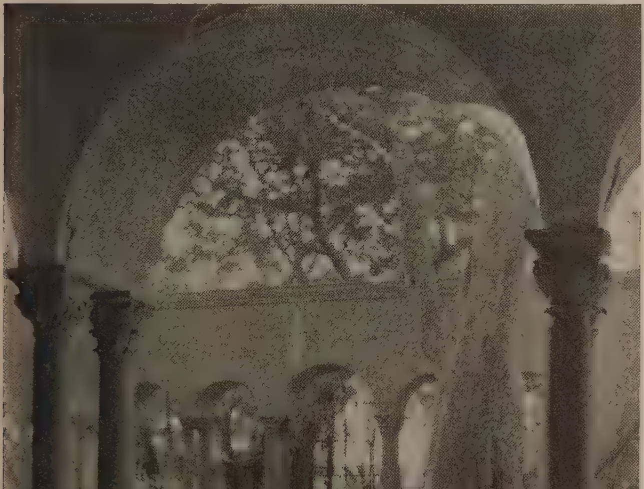


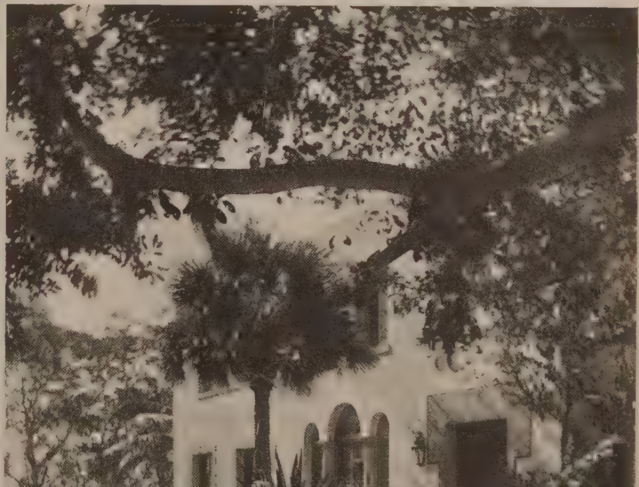
ARCHITECTURAL
DETAILS
ENGLISH
NO· SERIES ⑧

LINCOLN
ARCADE IN SOUTH NAVE AISLE
CATHEDRAL

MEASURED
AND DRAWN
BY
E· PICKERING

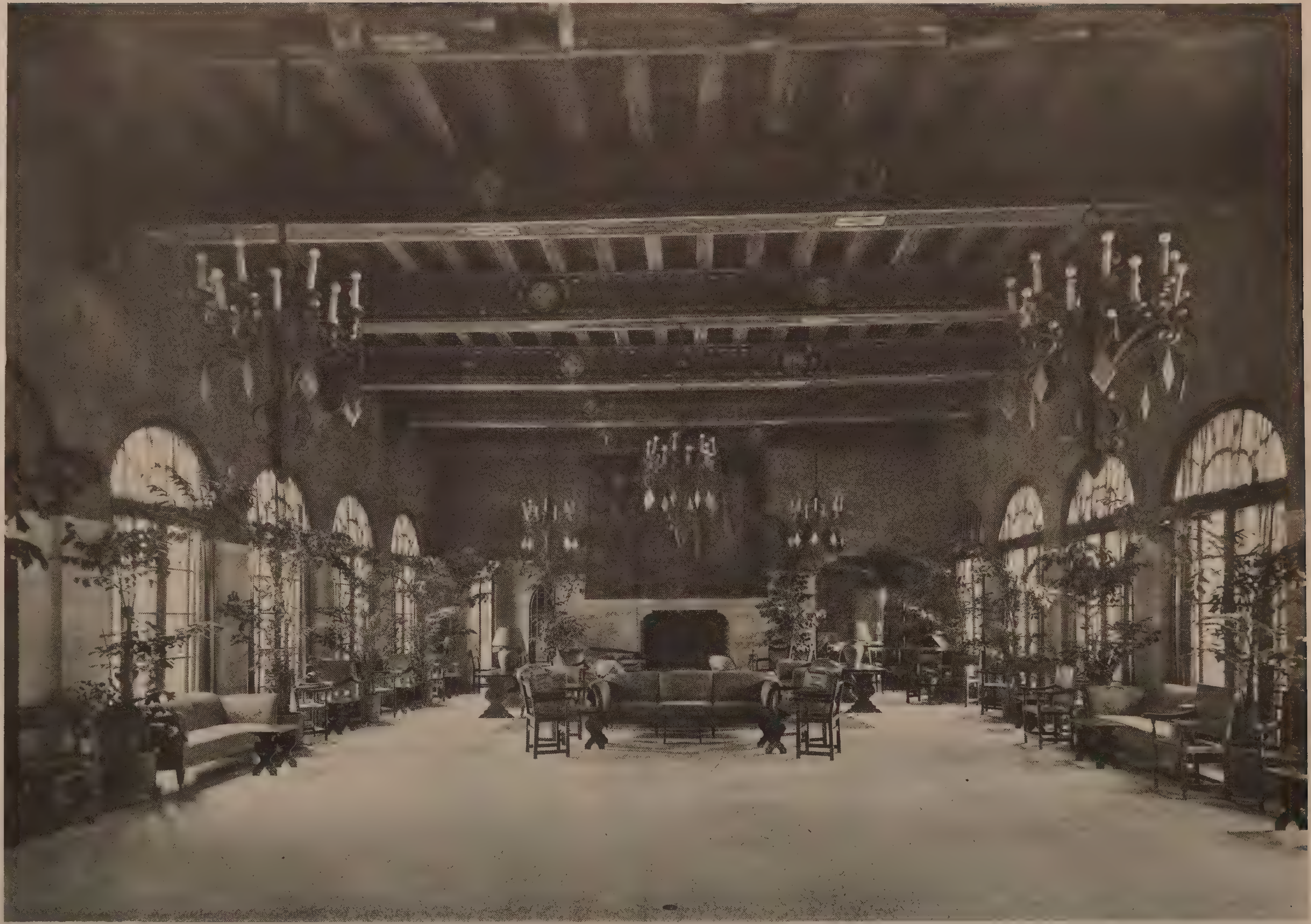




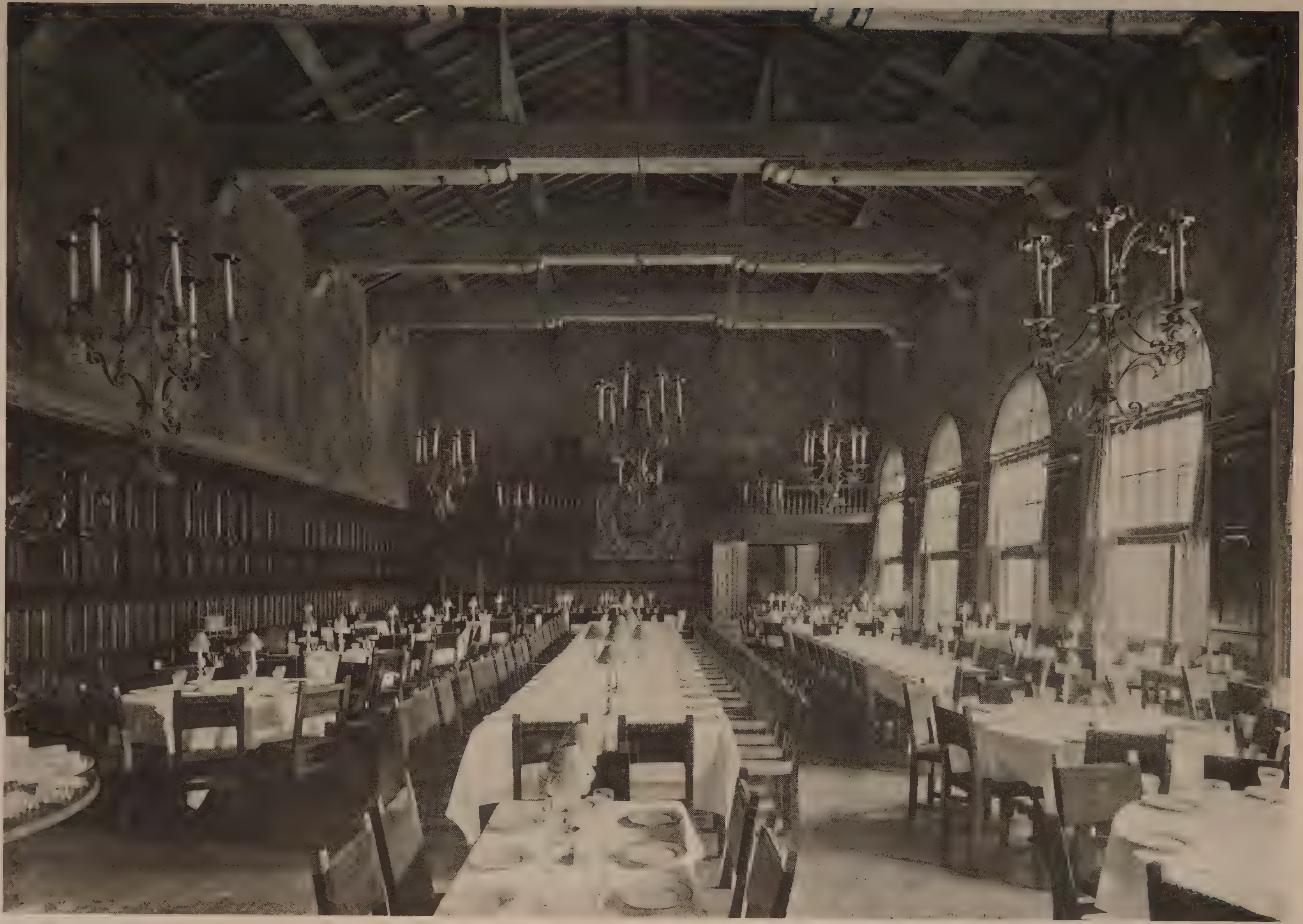


Everglades Club, Palm Beach, Fla.

ADDISON MIZNER, ARCHITECT

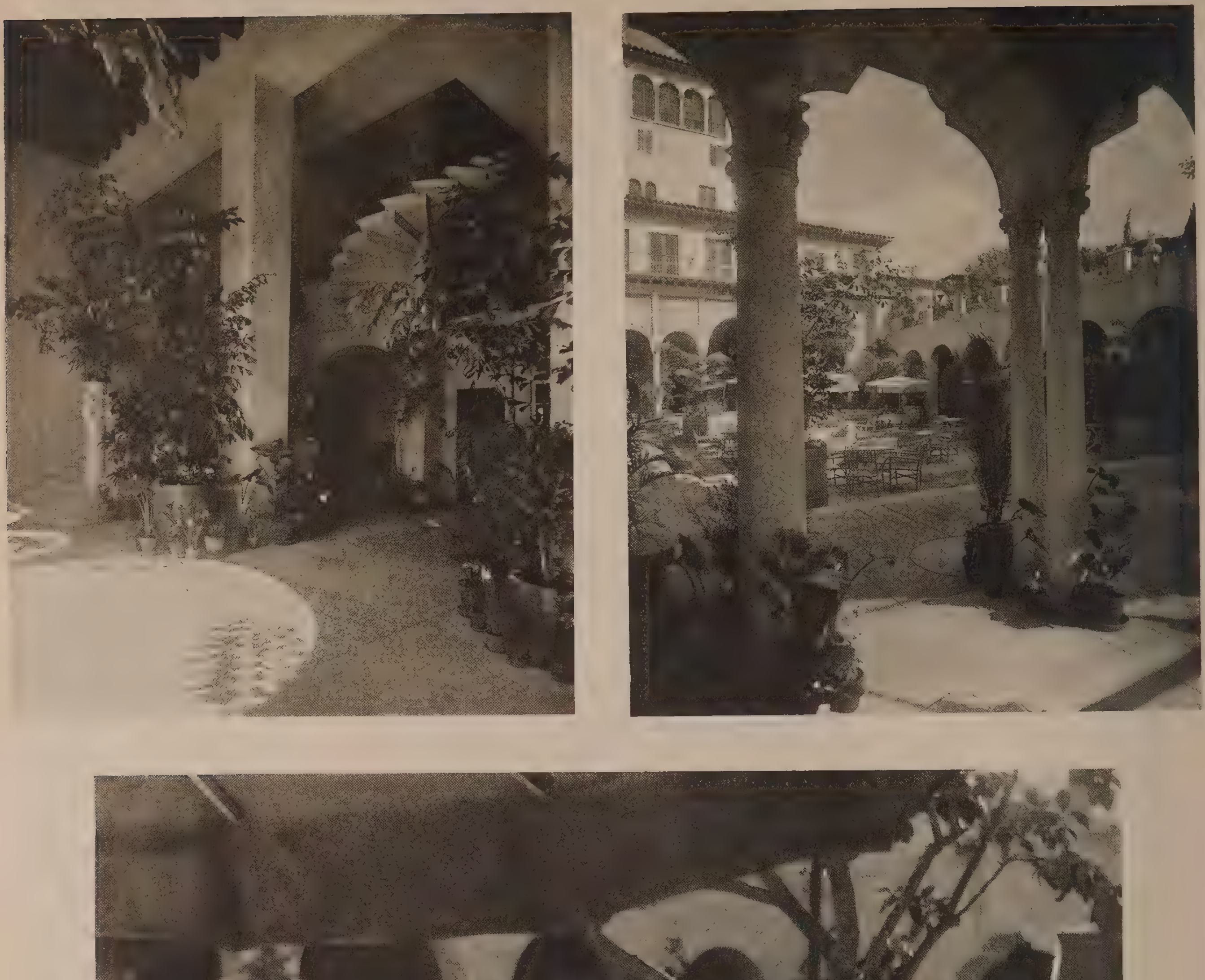


Everglades Club, Palm Beach, Fla. ADDISON MIZNER, ARCHITECT

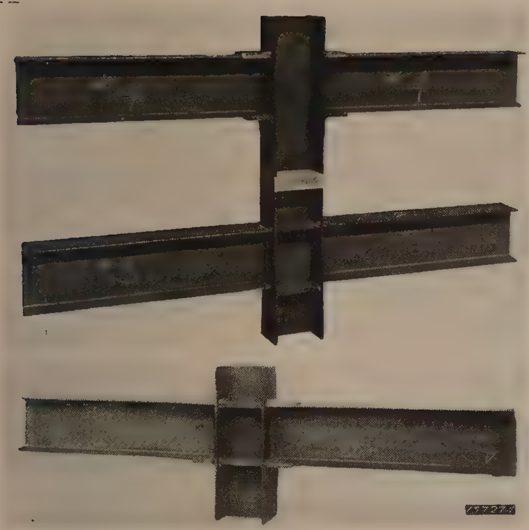


EVERGLADES CLUB, PALM BEACH, FLA.

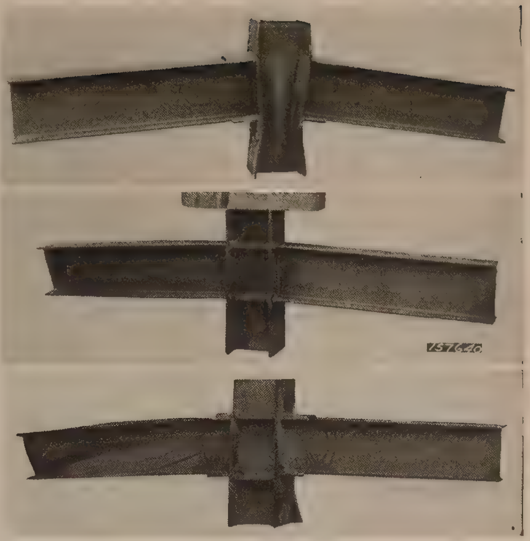
ADDISON MIZNER, ARCHITECT



EVERGLADES CLUB, PALM BEACH, FLA. ADDISON MIZNER, ARCHITECT



Specimens 2, 3, and 4 before and after testing. Note the advantage of the "continuity plates" within the I-beam flanges.



Arc-Welded Steel Construction

By A. M. Candy

Welding Engineer, Westinghouse Electric and Manufacturing Company

FOR a number of years the welding engineers of the Westinghouse Company have realized that arc welding could be used advantageously for making connections between steel members, used in various structures such as buildings. To convince the general public of this fact it was determined to make up a series of test specimens, using members of appreciable size such as are actually used in building construction, and to assemble them in various groupings to bring out as fully as possible the decided advantages which arc-welded connections have over riveted connections. In planning this series of tests a number of facts were to be substantiated. First, that continuity of beams through columns can be secured at reasonable cost. Second, absolute fixation of beams to columns, etc., is secured by the arc-welded connection. Third, arc-welded connections are economical in production and will result in joints which will remain intact up to the ultimate rupture of the members joined. Fourth, saving in material, due to eliminating fittings and better distribution of metal in the sections, can be secured.

To demonstrate these factors a series of twenty-three test specimens were prepared, all steel for which was furnished cut to dimensions, ready for assembly for the arc-welded specimens, and riveted specimens completely assembled by the American Bridge Company. All welding work on these specimens was carried out in the welding school of the Westinghouse Electric and Manufacturing Company, using a number of operators, some of whom were of only passing ability in order to assure results which could be duplicated in commercial practice. Furthermore, all of the welding on the test specimens was conducted with the specimens in exactly the position in which they would be located if they were a part of a building structure. In this way the welds were executed, some in a downward position, some along vertical surfaces, and others along overhead surfaces, so as to include all three positions of welding which the operator encounters in actual practice.

In this series of tests all simple beam specimens and girders were loaded at the centre on a loading block 5 inches wide, extending entirely across the top flange of the specimen. In case of the cantilever specimens of the double cantilever type, each specimen was turned upside down and supported near the ends on rocker blocks, having a face 5 by 8 inches, there being interposed, between the specimen and the rocker block, a piece of flat steel plate 1½ inches thick, 5 inches wide, and 8 inches long. All testing was carried out on the 400,000-pound machine located in Machinery Hall at Carnegie Institute of Technology, Pittsburgh, Pa.

Space will not permit a detailed discussion of all of the twenty-three test specimens and, therefore, we will confine ourselves to a discussion of a few of the most interesting specimens and those specimens from which direct comparisons can be obtained. Specimen 2 and Specimens 3 and 4 show some very interesting factors, as indicated by stress-strain combination curve showing the tests on the three specimens. Specimen 2 as illustrated comprises a double cantilever specimen using two 9-inch, 20½-pound Bethlehem I-beams framed to a vertical 8-inch H-column, 32 pounds to the foot. Seat angles are provided on the column for landing the beams in position, and reinforcing plates are provided on the top flanges of the I-beams to give additional strength, and particularly additional stiffness in the plane through the webs of the I-beams. In addition to these factors it will also be observed that "continuity plates" are provided in the column exactly in line with the flanges of the I-beams, said "continuity plates" being welded at their ends to the inside faces of the column flanges.

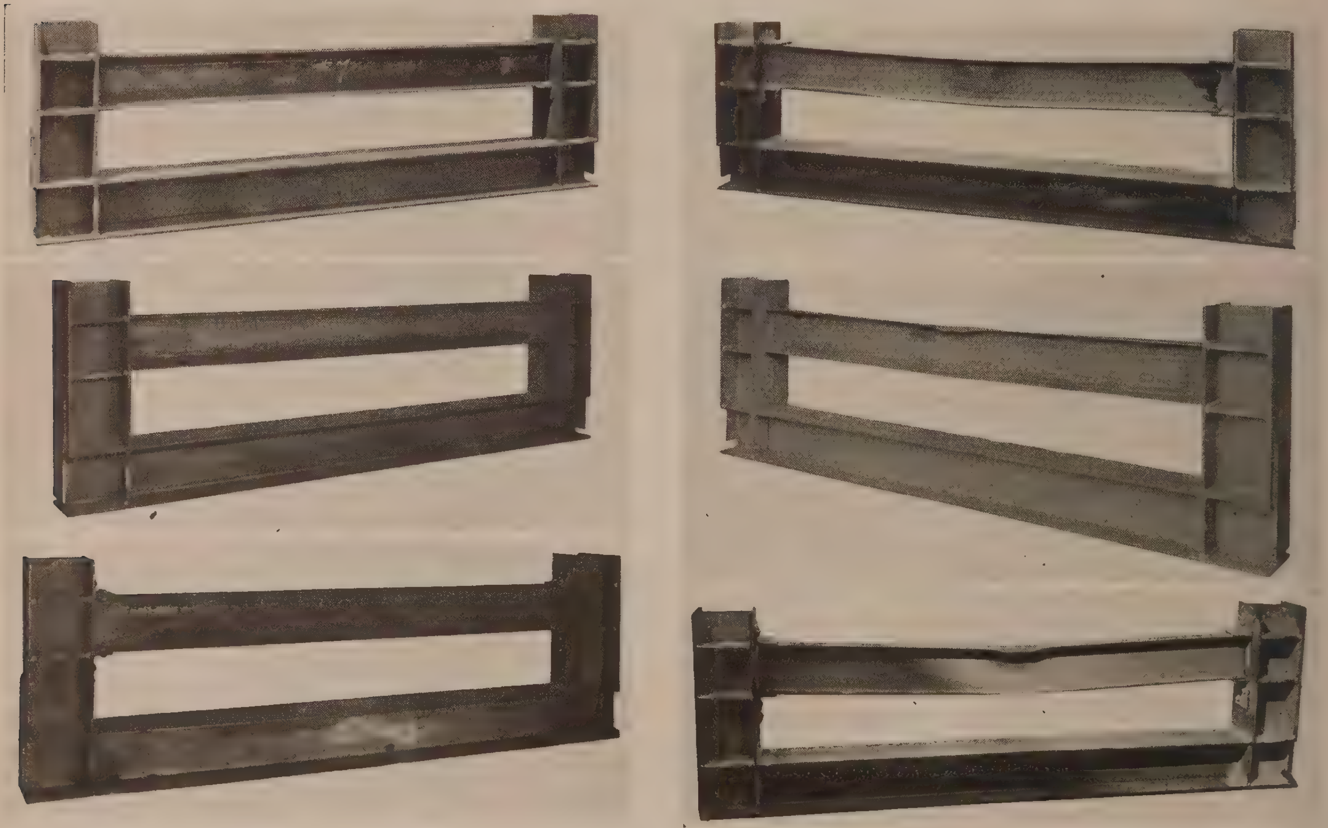
Specimen 3 is similar to 2 with the exception that the seat angles and reinforcing plates were not used. Specimen 4 is also similar to 2 with the very important single exception that "continuity plates" were omitted.

From the photographs and study of the stress-strain diagrams, it is interesting to note that naturally Specimen 2 proved to be far superior to 4 and somewhat superior to 3, due to the fact that more material was used in making the connections and said material was located at points where it could do the most good. The yield point of Specimen 2 is 104 per cent above that of 4 and 14 per cent above that of 3. The ultimate load of Specimen 2 was 40 per cent above that of 4 and 17 per cent above that of 3. It becomes evident, in comparing the curves for Specimens 2 and 4, that a very large improvement in the strength of the column connection is produced by the simple expedient of using the "continuity plates," which are very easily connected in the column by means of the arc-welding process. This is a construction which could not possibly be duplicated where riveting is used for the fabrication.

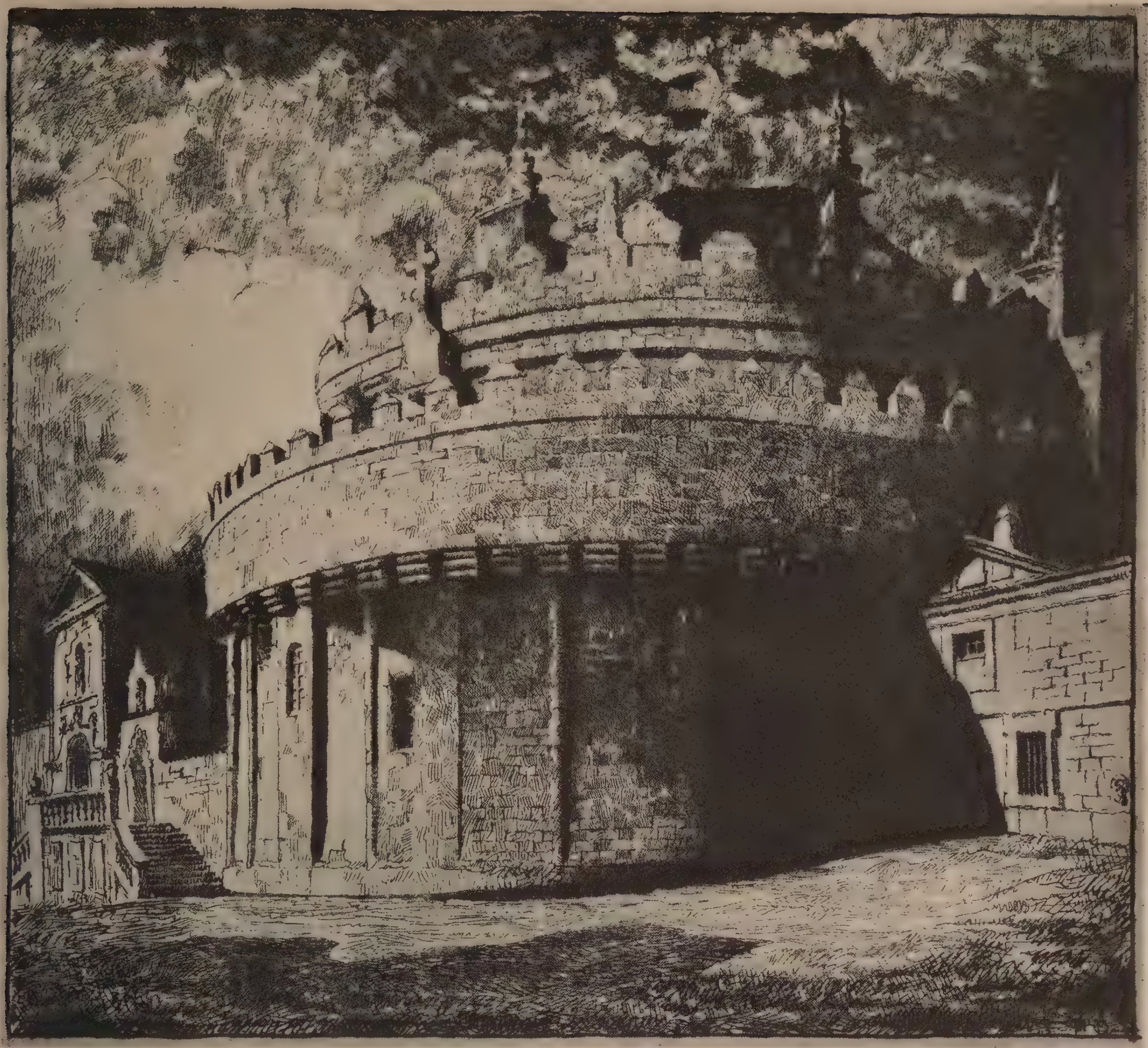
Specimens 7, 8, and 9 also show some very interesting comparisons. These specimens each comprise a 9-inch I-beam, 21.8 pounds, 7 feet 11⅜-inches long, framed between two vertical 10-inch Bethlehem H-columns, 49½ pounds. The main supporting frame in each of the specimens is made as nearly as possible like that of each of the other two specimens so as to have the tests as directly comparable as it is humanly possible to do so. Specimen 7 was made up with seat angles for landing the beam to the column and reinforcing plates at the top flange of the I-beam. Specimen 8 had neither the seat angles nor the reinforcing plates, whereas Specimen 9 has the I-beam framed to the column by standard riveting practice, using ½-inch-thick top and bottom angles and a total of twenty ¾-inch rivets, power-driven in $\frac{13}{16}$-inch holes. The stress-strain diagram disclosed that the yield point of Specimen 7 is 19 per cent above that of Specimen 9 and the ultimate strength of Specimen 7 is 25 per cent above that of Specimen 9. Specimen 8 had a yield point 19 per cent above that of Specimen 9 and an ultimate capacity 14½ per cent above that of Specimen 9. These results show the advantage of the welded connection over the riveted connection, especially where seat angles and reinforcing top-plates are used to give additional stiffness to the connection in a plane through the web of the I-beam.

These tests prove conclusively the points mentioned at the beginning of this article and in addition show the following points. (1) Lines of beams or girders can be connected so as to provide complete continuity across the supports, whether the supports be girders or columns. (2) Due to the additional stiffness secured at the welded joints, a welded building will be much more rigid and, therefore, the wind-bracing problem will be materially simplified.

(*In a following issue there will be shown additional specimens that contrast the results with arc-welding and rivetting.*)



Specimens 7, 8, and 9 before and after testing. No. 9 is riveted, the others welded.



CATHEDRAL IN AVILA, SPAIN

The Rear, by Moonlight

A Drawing by PAUL HERMANN

The etching-like quality of the drawing was secured by photographing a pen-and-ink original and enlarging it in a process known apparently only in Switzerland.

ARCHITECTURE, NOVEMBER, 1926

CONTACTS

DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES

York & Sawyer's Office Code

Purpose

It is the purpose of York & Sawyer to maintain an office professional in character rather than commercial; to obtain the best results with the least friction; to do work of a high order as expeditiously as possible, and to develop and improve continuously the organization and its work. This can be done only through the coöperation of each one and the appreciation of the spirit of the office by all.

Office hours

In order to work together in an atmosphere of good-fellowship and to avoid any temptation to adopt kindergarten methods of inspection or control, we suggest, in the interests of business efficiency, that work begin at nine o'clock and end at five o'clock, with a uniform lunch-hour for all from 12.45 to 1.30; Saturdays, from September 15 to June 15, the office will close at 1.15; from June 15 to September 15, Saturdays will be holidays.

Time

Time should be made out daily as follows:

From September 15 to June 15: Monday 7¼ hours, Tuesday 7¼, Wednesday 7¼, Thursday 7¼, Friday 7¼, Saturday 4¼. Total number of hours per week, 40½. Salaries for these months should be figured on the basis of 40½ hours per week.

From June 15 to September 15: Monday 7¼ hours, Tuesday 7¼, Wednesday 7¼, Thursday 7¼, Friday 7¼, Saturday 0. Total number of hours per week, 36¼. Salaries for these months should be figured on the basis of 36¼ hours per week.

NOTE: Weekly salary is unaffected by the above tables and remains constant throughout the year.

Holidays

Ten legal holidays with pay are allowed as follows: New Year's, Lincoln's Birthday, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Columbus Day, Election Day, Thanksgiving Day, Christmas.

Vacations

Those who have been with York & Sawyer one year from July 1 are entitled to two weeks' vacation, with pay. Those who have been in the office less than one year are entitled to one day's vacation for each month of service in the office from July 1.

Time-slips and pay-day

In order to have information for establishing costs, each draftsman is to keep an accurate weekly record of time spent on each drawing, upon slips furnished him, giving the title and number and a summary of the amount due him for each drawing, and hand it to the bookkeeper before noon on Monday.

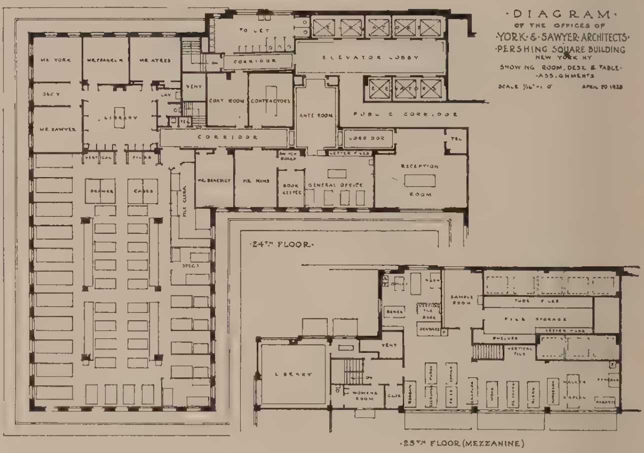
Squad leaders and superintendents are to note the time spent upon each job, either in or out of the office.

Pay-day is on Tuesday for the past week's work, and payments are made by check.

DRAWINGS

MISCELLANEOUS DRAWINGS:

(*a*) *Definition.*—Rough studies, rendered drawings, perspectives, etc., from which prints are not to be made.



(*b*) *Date.*—Miscellaneous drawings are to be dated.

(*c*) *Recording.*—Miscellaneous drawings need not be recorded.

PRELIMINARY DRAWINGS:

(*a*) *Definition.*—All drawings, studies, sketches, etc., other than working drawings and details, made before the working drawings are started or during their preparation, *from which prints are to be made.*

(*b*) *Scale and Date.*—Each sheet is to have date and scale clearly noted.

(*c*) *Schemes.*—To be lettered A, B, C, etc.

(*d*) *Numbering.*—All preliminary drawings are to be numbered. Draftsmen are to obtain numbers for *all* drawings from the File Clerk, stating the title and scale of the drawing.

To be consecutive in the order in which they are made, as follows: Pre. 1, Pre. 2, etc.

(*e*) *Border, Lettering, and Size.*—To depend on the character of the drawing.

WORKING DRAWINGS:

(*a*) *Definition.*—All final drawings for estimate, contract, and building purposes.

A final drawing is a working drawing as soon as it is started, whether or not it is to be traced later.

(*b*) *Scale.*—Working drawings to be made at a scale of ⅛″ or ¼″ to the foot, and details at ¼″ or ¾″ to the foot or larger.

(*c*) *Size of Sheet.*—To be determined by size of job.

All scale drawings and details for the same job to be on the same size sheet.

In no case is any sheet to be larger than 44″ × 70″.

Small working drawings are to be combined on a sheet the same size as the job sheet. Each drawing to have its own title, date, and number, the general title of the sheet to cover all the drawings. The numbers of all the drawings to be given in the circle at the lower right-hand corner of the sheet.

(*d*) *Letterings and Borders.*—

1. To be of size, character, and arrangement as shown on sample sheet.
2. When the name of Associate, Consultant, or Engineer does not appear, the firm name and address are to be centred in the panel.

(*e*) *Notes and Revisions.*—

1. To be as shown on sample sheet.
2. Revisions to be numbered and dated and to state character and location of revisions.
3. During the preparation of drawings, revisions may be noted in pencil, and when the drawings are completed these revisions may be erased and a note made, "Revised to ...."

(*f*) *Numbering.*—Draftsmen are to obtain numbers for drawings from the File Clerk, stating the title and scale of the drawings.

Squad leaders, desiring to maintain a sequence of numbers, may arrange for so doing with the File Clerk.

Numbers are to be of the size and character shown on the sample sheet.

All drawings are to be dated and numbered according to the following system before being printed: Plot Plan 04, Excavation Plan 03, Subbasement Plan 02, Basement 01.

First Floor 1, First Floor Mezzanine 1M1, 1M2, etc., Second Floor 2, Second Floor Mezzanine 2M1, 2M2, etc., Third Floor 3, Typical Floor 4 to 11, Roof 12.

Elevation 13, Elevation 14, etc., Section 15, etc., Scale Details 101, 102, 103, etc., Full-sized Details 301, 302, 303, etc.

Engineering Drawings:

These are to be numbered the same as architectural drawings with a letter above the number as follows:

Steel Drawings S–01, S–1, S–2, etc., Plumbing Drawings P–01, P–1, P–2, etc., Heating and Ventilating Drawings HV–01, HV–1, HV–2, etc., Heating Drawings H–01, H–1, H–2, etc., Ventilating Drawings V–01, V–1, V–2, etc., Electric Drawings E–01, E–1, E–2, etc., Vault Drawings VT–1, VT–2, etc., Equipment Drawings EQ–1, EQ–2, etc., Refrigeration Drawings R–1, R–2, etc., Sewage Disposal Drawings SE–1, SE–2, etc.

Change Sheets:

Change sheets are to be considered as correspondence, to be made letter-paper size, to have a title, and to be numbered Change Sheet 1, Change Sheet 2, etc.

The Drafting Room

Printing:

Orders for prints are to be written on pink order pads provided for the purpose. If it is desired that prints be sent out of the office, state destination on slip.

Filing:

Drawings removed from storeroom files for reference are to be returned to the File Clerk when no longer needed.

Tracings are to be removed from the drawers only for additions, revisions, or printing. Prints to be used for office reference in all cases.

Finally:

You are requested to be on time; to start work promptly; to avoid unnecessary conversation; to return books to the library each night; to place loose drawings on the filing cabinet at night; to leave tables protected and tidy; to note personal telephone calls with the operator; to close the windows and put out the lights when leaving; in short, to work efficiently through the business day and to do those things which in the formation of your own habits and character will best fit you to succeed in life.

The Library

BOOK REVIEWS

BUILDING FOR RELIGIOUS EDUCATION. By Henry Edward Tralle, M.A., Th.D., and George Earnest Merrill, A. I. A. 187 pages, 5½ by 8 inches. Illustrated with photographs, perspectives, and plans. New York: 1926: The Century Co. $2.

A collaboration between a specialist in religious education and an architect. The book should be indispensable to the church building committee, for whom it is written. The architect will find it helpful in presenting the latest ideas in parish-house problems: the relationship between classrooms and auditorium space; the requirements of kitchen and service equipment; and provision for the recreational side.

SOME LESSER KNOWN ARCHITECTURE OF LONDON. By James Burford, A. R. I. B. A., and J. D. M. Harvey, B.A. 23 pages and 70 plates, 7¼ by 9¾ inches. Illustrations from photographs. Printed in England. New York: 1926: William Helburn, Inc. $6.

The fecundity of English architectural writers is a never-ending source of surprise to us. They are constantly seizing upon some minor phase of the subject and making a book of it—and the books are almost never disappointing. This collection of photographs, reproduced in one of the gelatine processes, is no exception—a record of some interesting old work that will perhaps soon be demolished in the name of progress.

COTTAGES: THEIR PLANNING, DESIGN, AND MATERIALS. By Sir Lawrence Weaver, K. B. E., F. S. A., Hon. A. R. I. B. A. 402 pages, 5⅝ by 8¾ inches. Illustrated with photographs, plans, elevations, etc. Printed in England. New York: 1926: Charles Scribner's Sons. $6.

Sir Lawrence published the "Country Life Book of Cottages" in 1913; a second edition was issued in 1919. The present volume is an outgrowth of the wide acceptance of these earlier books as the most comprehensive record of what England is doing in her smaller domestic architecture. The war and the resulting increase of building costs by two and one-half times have wrought marked changes in the methods and materials used in these low-cost houses, none of which includes more than eight rooms. We shall find little to learn from our English brothers in the matter of planning to fit our own demands for more luxurious equipment, but we could well sit at their feet in the matters of exterior mass composition and the pleasing use of varied materials. The illustrations are chosen with the discrimination we have come to expect of Sir Lawrence and are very clearly reproduced.

ARNOLD W. BRUNNER AND HIS WORK. By Robert I. Aitken, Edwin H. Blashfield, Daniel C. French, Clayton Hamilton, J. Horace McFarland, Brander Matthews, Brand Whitlock, and Charles Harris Whitaker. Illustrated with Portrait, Sketches, Drawings of Projected Work, and Photographs of Executed Work. 42 pages of Text and 91 Plates, some in color, 9 by 12 inches. New York: 1926: Press of the American Institute of Architects, Inc. $15.

Books like the splendid tribute just published by the Institute and the volume on Bertram Goodhue serve a twofold purpose. They put on record achievements that should not be forgotten; they also bring home to us the realization that slowly but surely we are building up an American tradition in architecture, a tradition that must not only arouse our pride but stimulate the profession to greater things.

Arnold Brunner's life and personality provided an inspiring subject for the tributes of his fellows, his collaborators in painting and sculpture, his friends. His work was spread on a large canvas, undertaken in the strength of an excellent training and unwavering taste, and carried out with an energy and enthusiasm that never failed of contagion among his clients, his public, and his fellow artists. With a rare gift of convincing speech, always sparkling with picturesque wit, Arnold Brunner was a master of building committees, carrying through his ideas with the force of his reasoning and the effective lubrication of his tact. What he contributed to the beauty of many cities must inevitably bring a steadily growing measure of appreciation for many years to come. The present published record of his work as an architect and its able portrayal of his unforgettable personality was well worth the doing and has been fittingly done.

MONUMENTS OF CHRISTIAN ROME FROM CONSTANTINE TO THE RENAISSANCE. By Arthur L. Frothingham, Ph.D., sometime Associate Director of the American School at Rome, and Professor of Archæology and Ancient History at Princeton University. Fully illustrated, 12mo. The Macmillan Co., New York. $3.

This is a new edition of a book that has been accepted as an authority in its field. The second part, giving a classification of the monuments, basilicas, campanile, or bell-towers, cloisters, civil architecture, military architecture, sculpture, painting, etc., is of special value to the architect. The first part gives an historical sketch of religious and civil structures from the time of Constantine (312–37 A. D.) to the return of the Papacy from Avignon.

ANNOUNCEMENTS

Lockwood & Poundstone, architects, have closed their Tampa office, consolidating this with their office at the Forsyth Building, Atlanta, Ga.

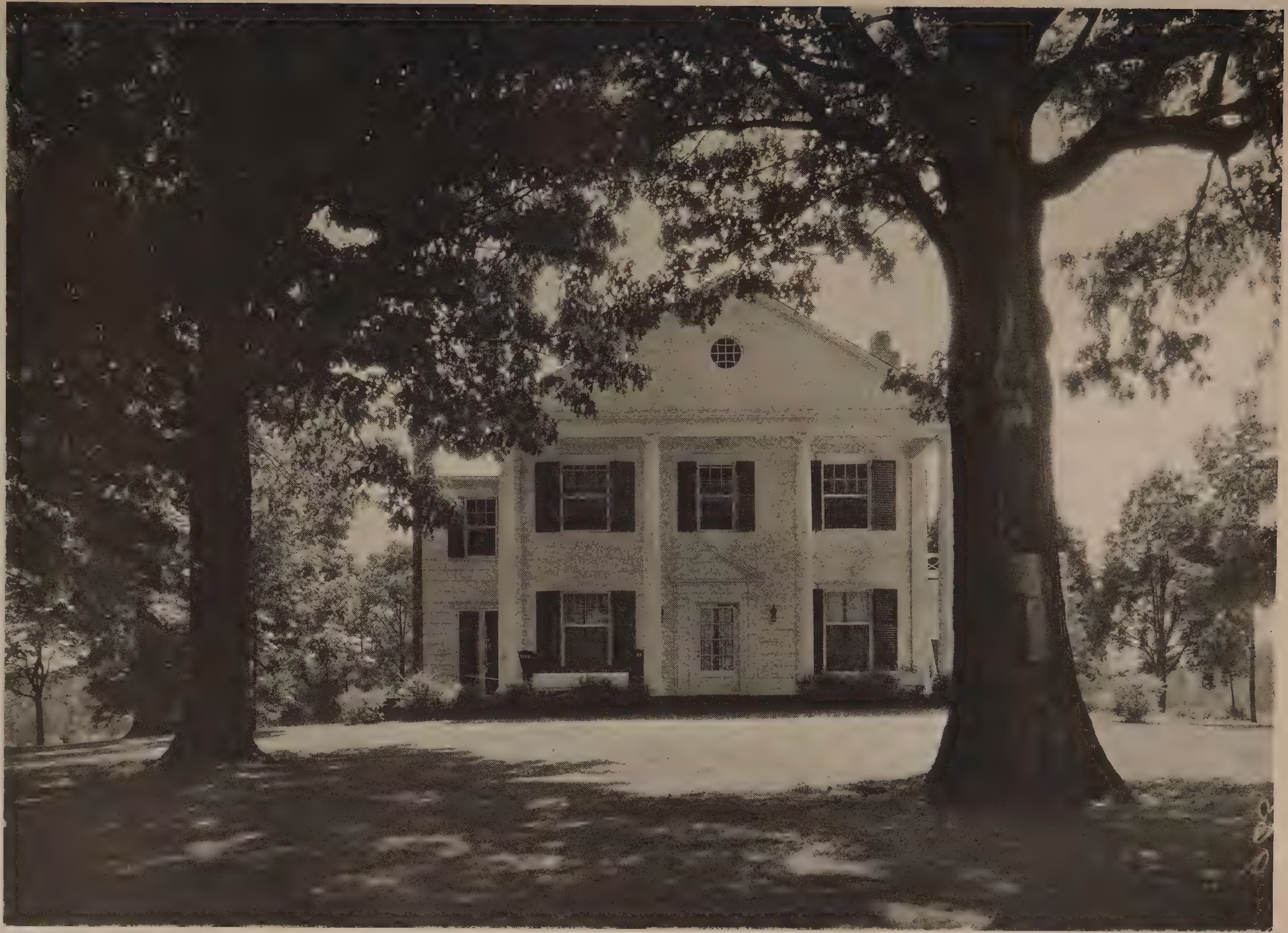
Irving R. Brown, architect, has opened a new architectural office and studio at 20 Beaver Street, Newark, N. J.

Theodore L. Perrier, architect, is now located at 905 Canal-Commercial Building, New Orleans, La.

Sam Stone, Jr., & Co., architects, of New Orleans, have moved their office to 1800 Masonic Temple.

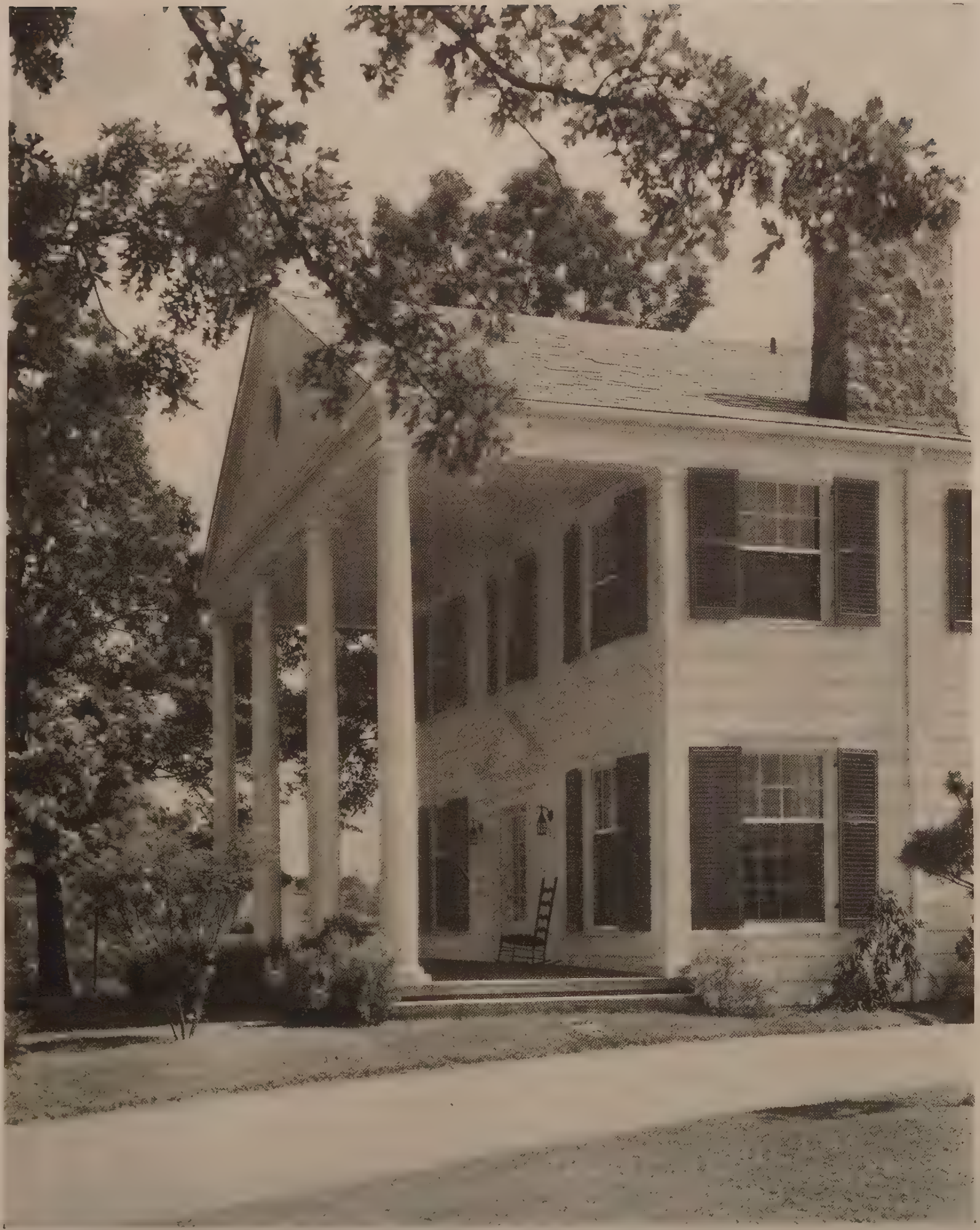
Andrew J. Thomas, architect, has moved his office to 2 West 46th Street, New York City.

The Third Semi-Annual Meeting of The Producers' Research Council, Affiliated with The American Institute of Architects, will be held in St. Louis, Mo., on November 4th, 5th, and 6th. This is expected to be a very interesting and constructive session, and it is expected that a number of prominent architects will address the meeting on subjects of mutual interest. All members of The American Institute of Architects are cordially invited to be present at the meeting.

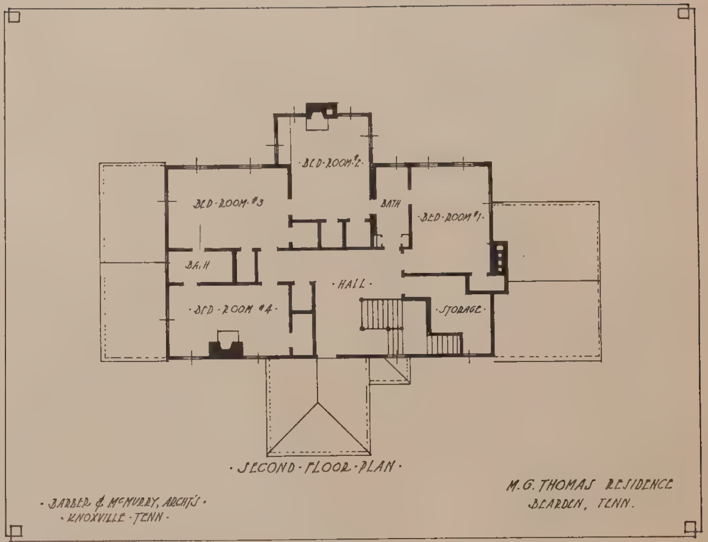


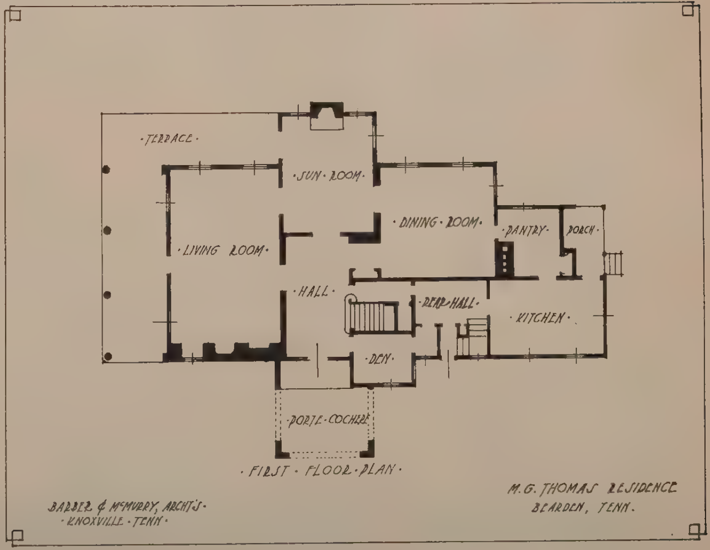
Residence of M. G. Thomas, Bearden, Tenn.

Barber & McMurry, Architects

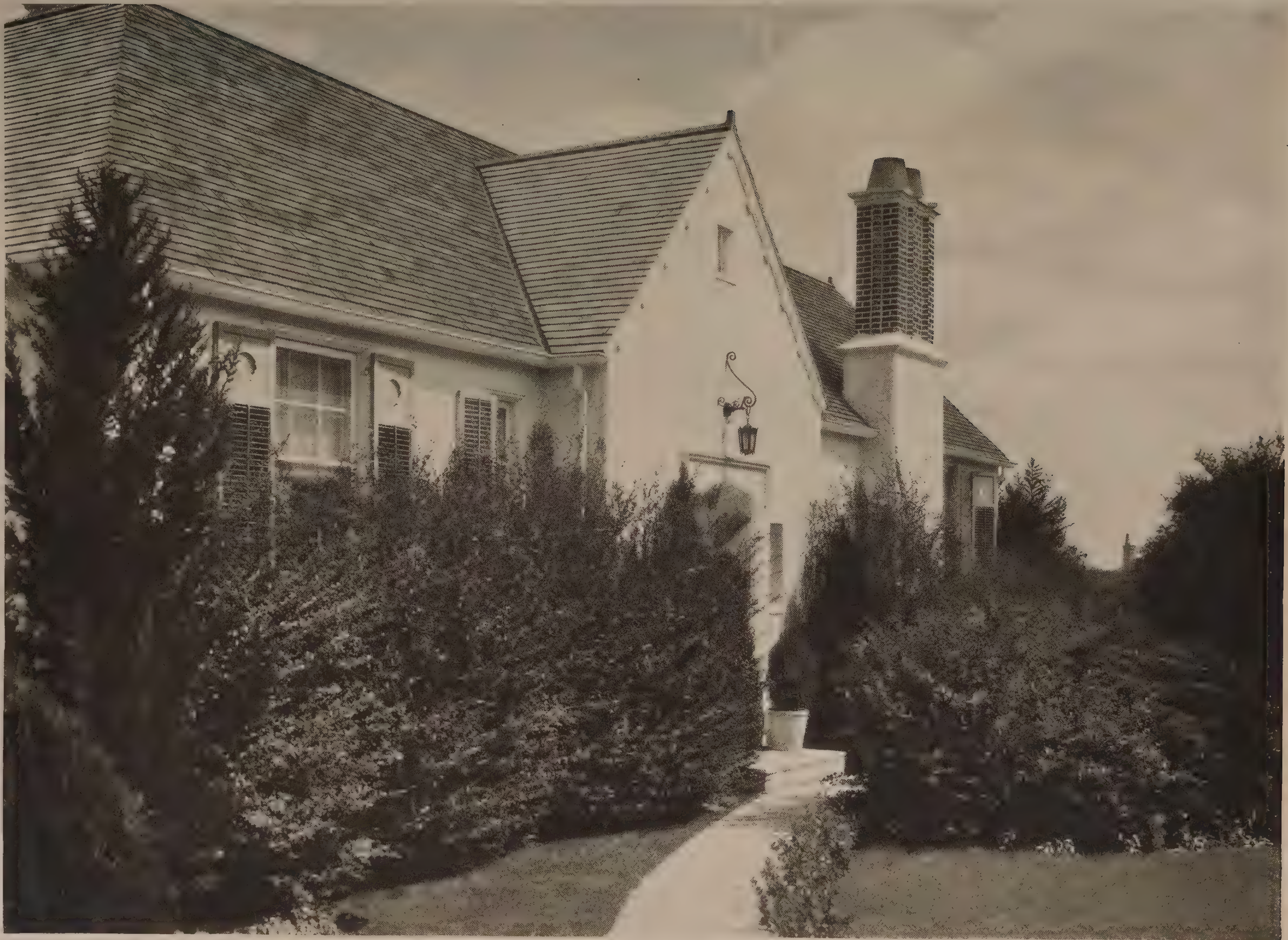


Residence of M. G. Thomas, Bearden, Tenn.



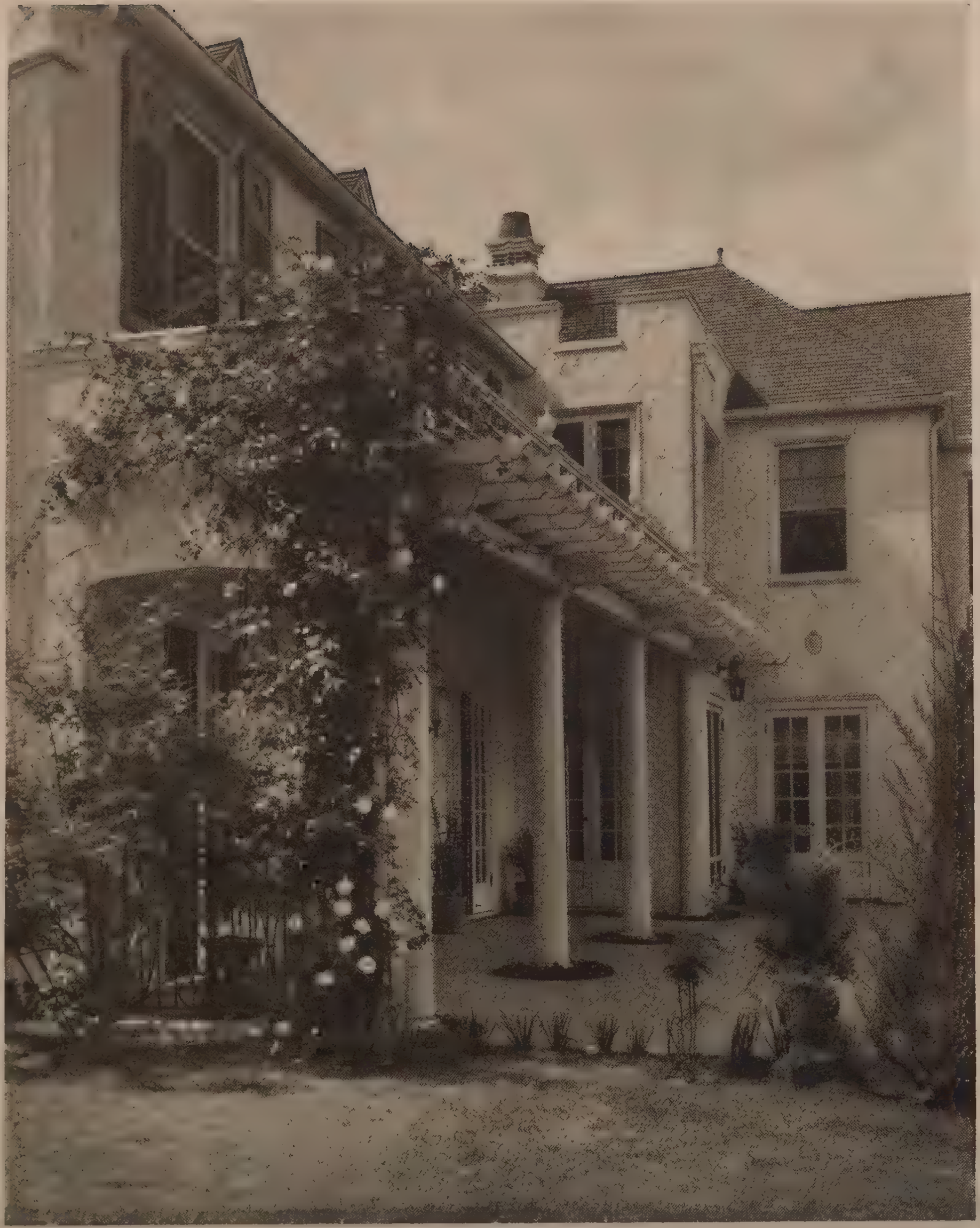


BARBER & McMURRY, ARCHITECTS

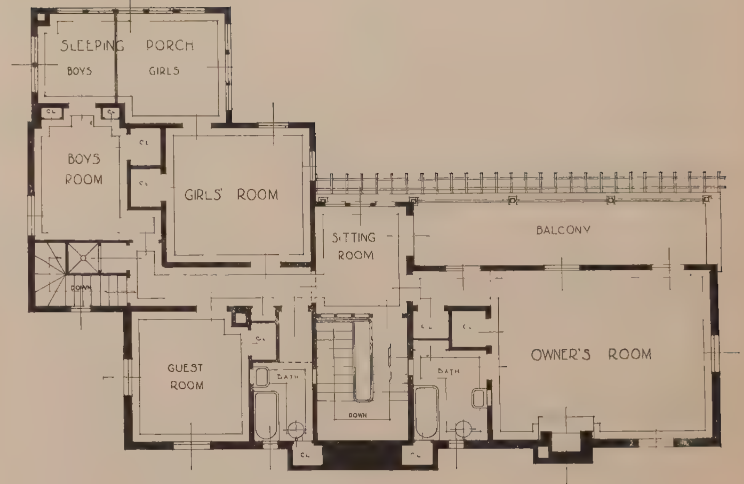


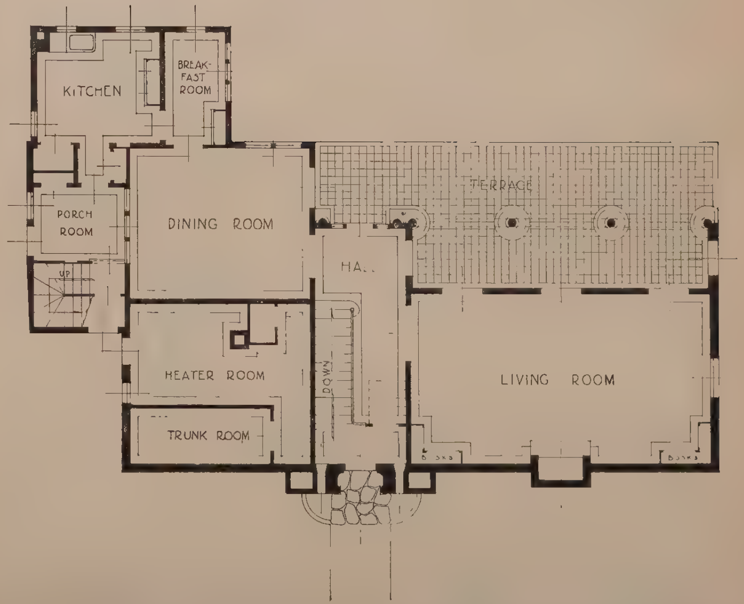
Residence of Frank M. Lewis, San Antonio, Texas.

ADAMS & ADAMS, ARCHITECTS



Residence of Frank M. Lewis, San Antonio, Texas





Adams & Adams, Architects

ARCHITECTURE

December 1926

Edward Devotion House (1680), Brookline, Mass.

PHOTOGRAPHS AND MEASURED DRAWINGS

Asher Benjamin

THOMAS E. O'DONNELL, A. I. A.

Viterbo

WITH PENCIL DRAWINGS BY CHARLES M. STOTZ

Shutters and Blinds

A PORTFOLIO OF PHOTOGRAPHS

Building Codes and Structural Standards

THEODORE CRANE

ONE DOLLAR PER COPY

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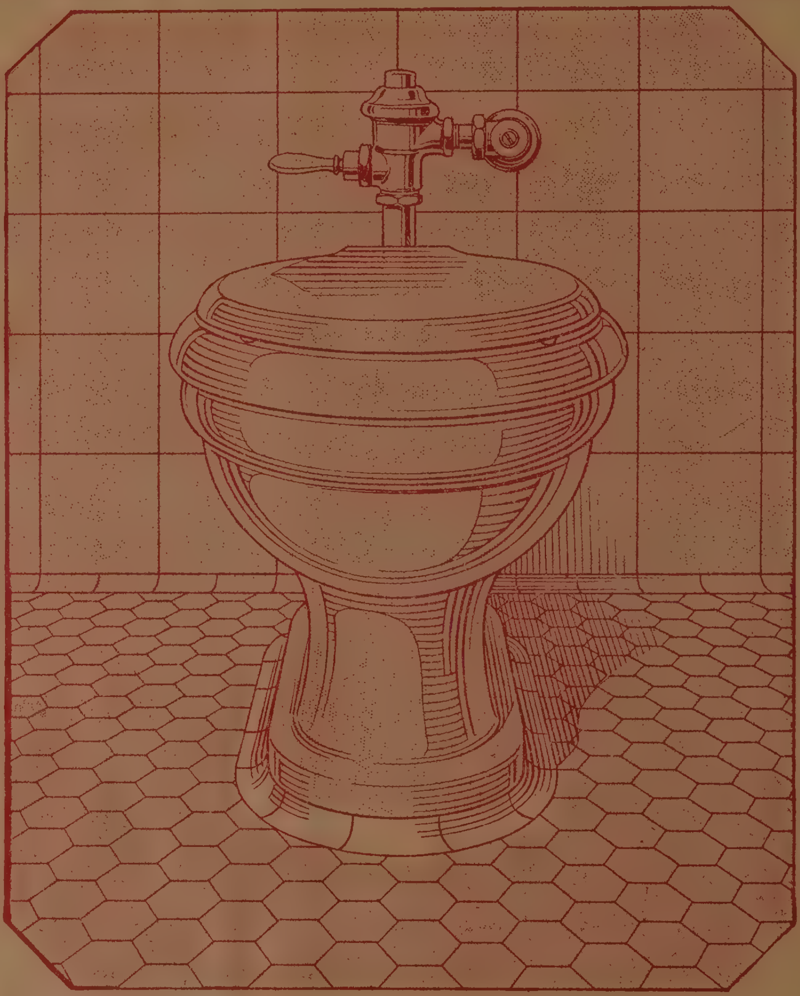

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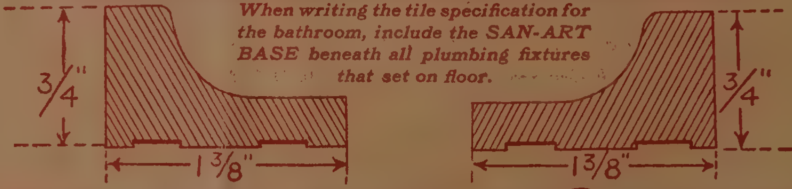

When writing the tile specification for the bathroom, include the SAN-ART BASE beneath all plumbing fixtures that set on floor.

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THE EDITOR PRESENTS:

Who's who in this issue and others to come. Editorial plans completed and others still in process

THE sight of a completed building may be of interest to an architect in the message it carries through its external appearance, but that interest is enormously increased when the observer is told who designed the work, what else he has done, what his particular aim and problem was in this case. Probably the same applies to an architectural magazine. There is an additional appeal in an article, or the showing of a building, a bit of rendering, or some unusual detail, if the reader is taken behind the scenes, as it were, and introduced to its author.

It is with this thought in mind that this page is instituted. Rather than merely handing his readers a finished issue of ARCHITECTURE, and by his silence implying: "Here it is; take it or leave it on its face value," the editor would like to tell you some of the things that do not appear on the surface—why certain articles were written, something of the backgrounds of their writers.

Those of you who honor us with an occasional call, we find, are interested in seeing the magazine in process—material that is being assembled for future issues, plans for new features that are still simmering on the fire; you ask who is doing this, who designed that, and what else he has done; you bring in the gossip of the offices and hear some that is new to you. It is something in the nature of a substitute for that call on the part of those who are too far away or too busy to come in that this page is designed to be.

We trust that it is not going to be a one-sided affair, like the work of the radio broadcaster who knows not who hears his voice, catching neither echo nor reply. Your criticism or comment of any kind upon what is in the magazine or what should be there will help enormously in making ARCHITECTURE more nearly what we all want it to be. This is, as has been said before, a vast country. We of the editorial staff try to get about it as widely and frequently as we can, but we must miss a tremendous amount of interesting things, some of which you could bring into the magazine if you would. News of the more monumental work spreads quickly and widely, but a great many of the smaller things that comprise the backbone of American architecture of our day never come to the light of the printed page, which is a real loss to all of us.

Architects, as a rule, are quicker to praise the good work of their fellows than are the members of any other profession, in our opinion. So, though your modesty forbids mention of your own achievements, tell us, when the spirit moves you, of some really notable accomplishments on the part of your contemporaries.

THE NEW COVER

For more than two decades ARCHITECTURE has appeared in the same cover. It is a good cover, too, not only because H. Van Buren Magonigle designed it, but because any cover that persists for twenty years or more must have possessed most of the elements of success. However, having had a touch of the prevailing American desire for change, we appeared last month with a new façade. We asked W. A. Dwiggins to design it, giving him a rather free hand but expressing a hope that the long-used silhouette of the Erechtheion might be retained in a less dominant form. Mr. Dwiggins, who designed the new cover for *Harper's Magazine*, is one of the few men in this country who combine with unusual ability in decorative design a real feeling for and knowledge of typography. Born in Martinsville, Ohio, in 1880, he studied in Frank Holmes's School of Illustration, Chicago, and has since devoted his energies in applying graphic arts to printed matter. Since 1905 he has made Boston his working centre, living in Hingham. During the war he was acting director of Harvard University Press. Among his writings are a treatise on Caslon's Type Flowers, written for the Society of Printers, Boston, and an article in *The Fleuron*, 1924, on D. B. Updike and the Merrymount Press.

DWIGHT JAMES BAUM, A.I.A. Architectural League Honor Medalist, 1923, who contributes an article on page 433

IN THIS ISSUE

Thomas E. O'Donnell, A. I. A., Assistant Professor of Architecture at the University of Illinois, needs no introduction to the readers of ARCHITECTURE.

Charles M. Stotz, who wrote and illustrated the article on Viterbo, started his architectural education at Cornell, and while there made for us a number of measured drawings of western New York's early architecture. He practises with his father, Edward Stotz, of Pittsburgh.

Neither John Russell Pope, Otto R. Eggers, nor Albert Kahn need any words from us other than an expression of our gratification at having their work appear in these pages.

Charles J. Walsh, who measured the Devotion House, is in the Boston office of Cram & Ferguson—an office, by the way, that is particularly sympathetic with any efforts to record the details of early American architecture.

Henry J. McGill and Talbot F. Hamlin, the latter a son of the late Professor A. D. F. Hamlin, were formerly of the office of Murphy & Dana, New York, a partnership now dissolved.

The article on "Building Codes and Structural Standards" brings to a close the series of three by Theodore Crane, Associate Professor of Building Construction at Yale.

Bernhardt E. Müller is a New York architect who has several Christian Science churches to his credit in addition to the one we show. He wrote and illustrated for our December, 1918, issue an interesting article on the technic of pencil drawing.

Childs & Smith have made a name for themselves largely in educational buildings and banks, spreading over the country north of Chicago. Mr. William J. Smith studied in Paris. We illustrated their Chicago offices in November, 1924.

The work of Gerald Kenneth Geerlings, who is making for us the present series of double-page measured drawings, has become deservedly well known to the readers of the architectural journals through the publication of his sketches and more elaborate renderings in various media. His architectural education, begun in the University of Pennsylvania, interrupted by war service and broadened by two terms at Cambridge and considerable travel, culminated in a master's degree and a term as instructor at Penn under Mr. Paul Cret, after which the university sent him abroad once more. Mr. Geerlings has worked in the offices of York & Sawyer and Starrett & Van Vleck, and at present is spending part of his time with James C. Mackenzie, Jr., New York architect, and the remainder of his twenty-hour day etching, lithographing, rendering in many media, and doing magazine work.

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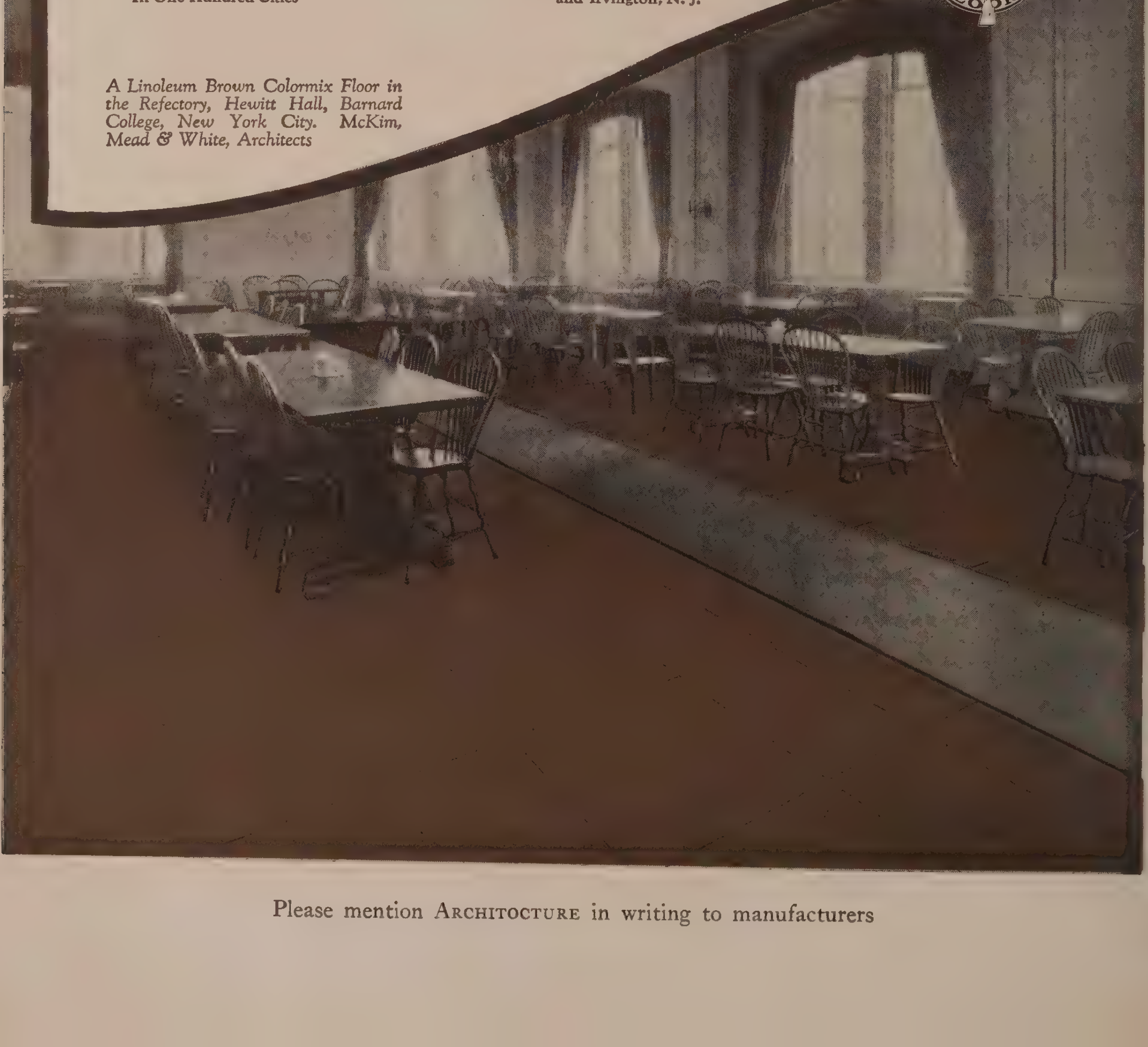
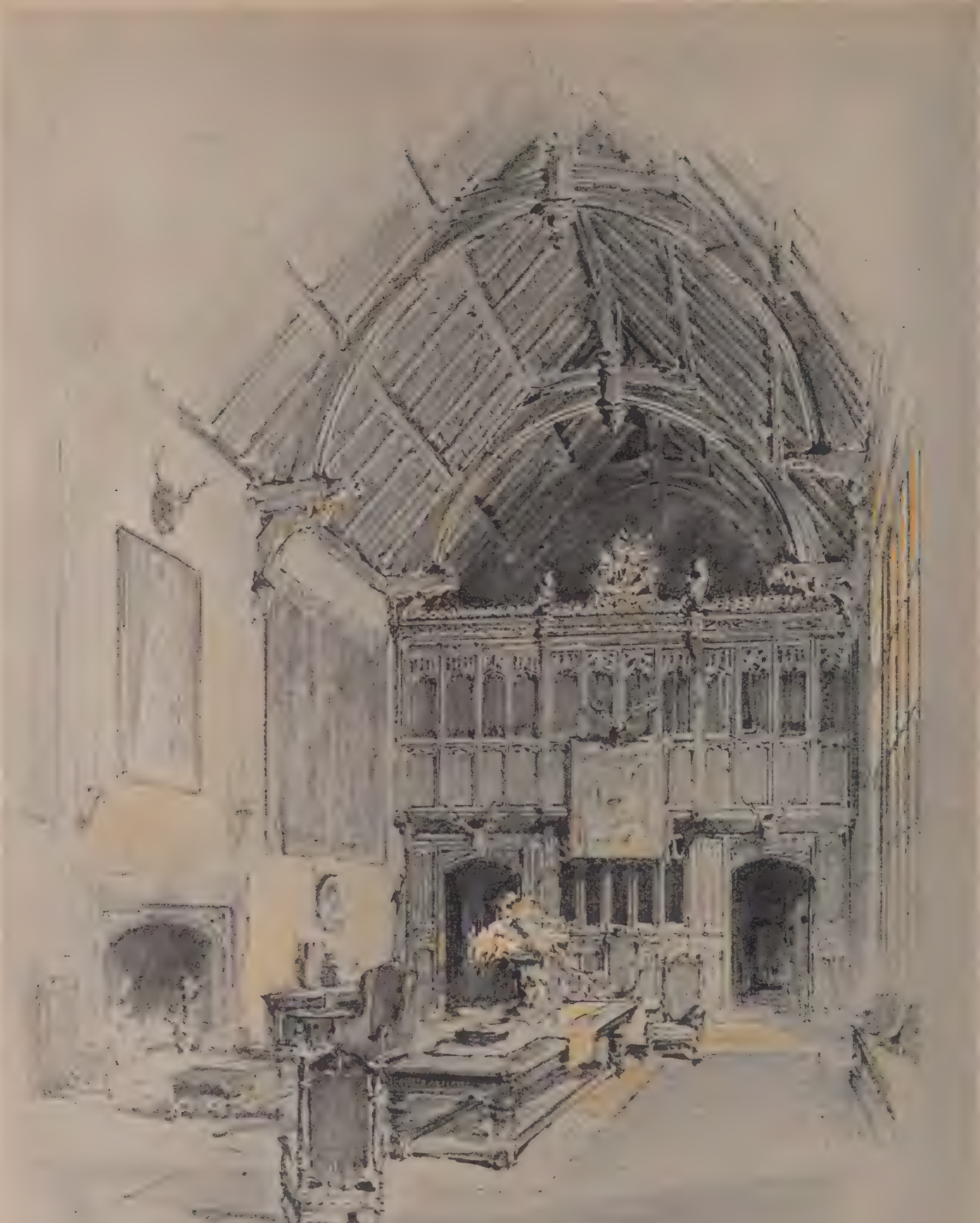


A Linoleum Brown Colormix Floor in the Refectory, Hewitt Hall, Barnard College, New York City. McKim, Mead & White, Architects



Sketch to aid clients' visualization
[ARCHITECTURE *Frontispiece*]

By OTTO R. EGGERS, The Office of JOHN RUSSELL POPE, ARCHITECT

ARCHITECTURE

VOLUME LIV DECEMBER 1926 NUMBER 6

Asher Benjamin

A PIONEER AMERICAN WRITER OF ARCHITECTURAL BOOKS

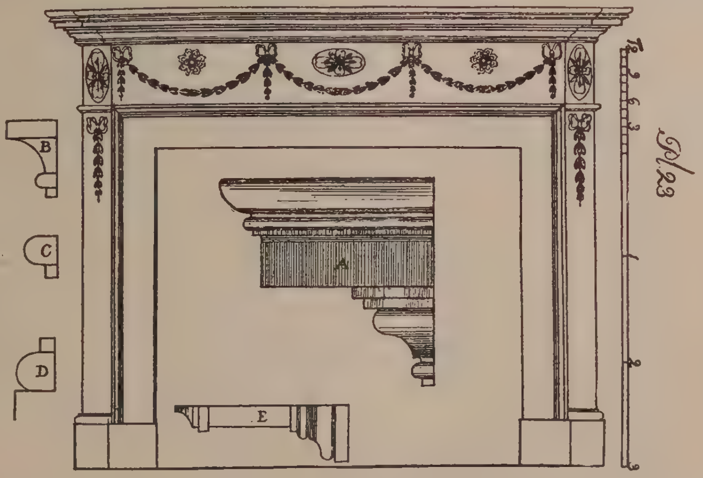
By Thomas E. O'Donnell, A. I. A.

THE first published works on architecture were produced in Europe. From the time of Vitruvius, architectural book publishing has occupied a place in the printing art. Modern printing was early developed in Italy and soon spread to Germany, France, and England. The earliest works outside of Italy were in most cases the making of translations of Italian works, especially of the works of Palladio. As early as 1663 Godfrey Richards published an English translation of the first book of Palladio. From this time on many English and French books on the architectural antiquities of Rome and translations of Alberti, Vignola, and Scamozzi made their appearance. It was not until about 1727 that books on English architecture were published. In that year Kent published a work on Inigo Jones. This was the beginning of a new régime, for between 1727 and 1800 there seems to have been almost a mania for publishing books on architecture, many of the writers not hesitating to publish their own work in all its glory. Such men as Flitchcroft, Gibbs, Isaac Ware, Brettingham, Robert Morris, William Halfpenny, Swan, Batty Langley, Parris, William Paine, and Colin Campbell published works on "modern architecture," including many examples of their own, as distinguished from earlier publications which were almost invariably upon some phase of the old classic architecture.

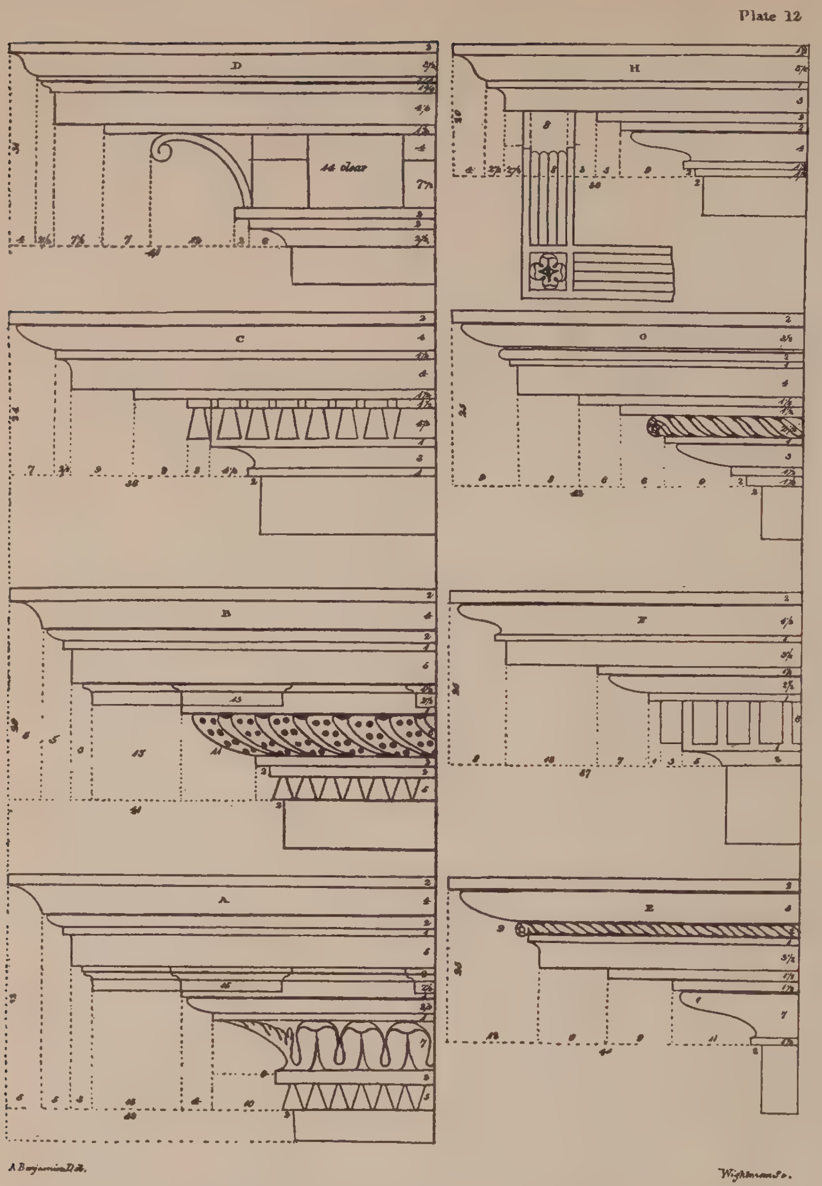
But there was a reaction; on the part of some architects and scholars, to this "modernism" in architectural publications; consequently we find such distinguished personages as Lord Burlington, Sir William Chambers, Stuart and Revett, and the Brothers Adam making extensive studies of ancient classic architecture, and publishing treatises upon it. These latter publications held the balance and gave some degree of scholarly dignity to the architectural publications of the time. The works of Stuart and Revett, on the "Antiquities of Athens," for instance, gave an entirely new direction to the historic architectural precedent of the period, by changing the field of research from old Rome to Greece, the real source of classic architecture.

The influence of this period of profuse English publications upon the architecture of succeeding generations was most direct and effective, for it paralleled in point of time the development of early architecture in America. Many copies of these English publications were brought to America, and formed the "handbooks" of the carpenters and builders. They also furnished the source of information and inspiration for the "carpenter-architect," a combined designer and builder, who was the immediate ancestor of the early American architect.

The American builders were especially in need of small, handy volumes or handbooks which would give them practical suggestions for carrying out their work. The English books, by Batty Langley, William Paine, Halfpenny, and others, bearing such titles as "The Practical House Carpenter," "The Practical Builder," "The Art of House Carpentry," or "Modern Builder's Assistant," met their needs in part, but they dealt with a foreign type of construction which, in a pioneering wood-building country like America of that period, was not always applicable. This fact was soon sensed, especially by the so-called "carpenter-architects" who were called upon to



Mantel design from Plate 23 of Benjamin's first volume, "The Country Builder's Assistant." From Aymar Embury, II, reprint, "Asher Benjamin"



Typical cornice designs from Plate 12 of Benjamin's second volume, "The American Builder's Companion." After Embury reprint, "Asher Benjamin"

revise the methods and designs as shown in the English publications, in order to meet American building conditions. The logical outcome of this would be to publish *American* handbooks patterned after these well-known English books.

It is not surprising therefore to find that Asher Benjamin, a pioneer American writer of books on architecture, was originally a carpenter-architect, who had learned through experience something of the needs of the carpenter and builder. His attempt to supply practical handbooks for these builders resulted in a series which became so widely used during his time that they have often been referred to as the "Carpenter's Bible." Although his books were not the first to be published in America, they were on the whole the most interesting, valuable, and the first to be widely used.

Concerning the early life and training of Asher Benjamin no records have so far been found. He is first heard of in the Connecticut Valley region, in western Massachusetts, where it is certain that he was a carpenter-architect, and was engaged in building some of the most interesting old houses found in that region. It is certain that he worked in Greenfield, and probably in Hadley, Deerfield, and other towns of the vicinity. In fact, he may have been taught the trade at the hands of the efficient builders of that region. At any rate, we have a record showing that he was living in Greenfield about the year 1797, and we know that his first book was published there in 1805. His name does not appear, however, in any of the old family records of the vicinity, which would indicate that he may have come into the valley from perhaps the East. Except for the brief period when he lived in Greenfield, we have little definite knowledge of his place of residence until about 1810, when it is known that he was living in Boston. As a carpenter-architect some of the best work accredited to him is in the vicinity of Greenfield, an example being the Hollister house, which was built in 1797. The Rufus Colton house and a house at Windsor, Vt., have also been assigned to him because of their similarity to the Hollister house. His name has been connected with the Alexander house, Springfield, which has been dated about 1811. This seems to have been but one of a whole series, of the same general architectural character, for which he may have been responsible. The scanty records do not make clear whether, during this early period of his career, he was the "designer" only, in the true professional sense, or whether he combined his architectural practice with the actual construction of these buildings in the carpenter-architect manner. It seems probable, however, that in many cases, at least, he was the builder in active charge of the construction. It is to be observed that at this early date architecture as a "profession" was hardly established in this country, except in a few of the larger cities and for public works. One definite connection of Benjamin's name with that of Springfield is his marriage to a Nancy Bryant of that city, although the marriage ceremony seems to have taken place in Boston, where it is recorded—July 24, 1804. His name thus appears in many places, but the records are so fragmentary that it is difficult to form a connected story.

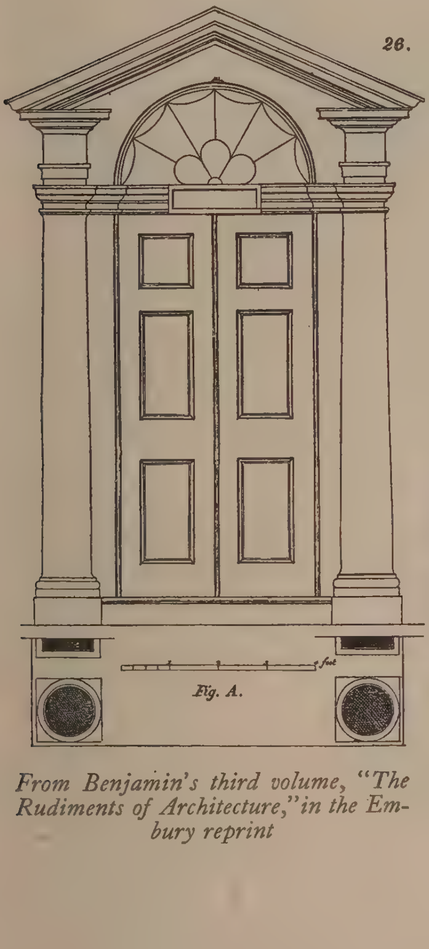
Although Benjamin's second volume was published in Boston in 1806, we do not have very definite record of his residence there until 1810. During 1816–17 accounts of his activities in Boston are more numerous. In the Boston records, under date of January 17, 1816, we find him appointed, by the selectmen, on a committee of appraisal. Under date of June 12, 1816, and January 27, 1817, we find reference to the action of the selectmen pertaining to the building line of the "Houses of Messrs. Cotton, Benjamin and Tuttle" on Beacon Street. On April 23, 1817, the selectmen give Asher Benjamin permission "to raise goods, etc., into the second floor stories of his stores—from passageway out of Broad Street—until further orders." On June 11, 1817, there is recorded in the selectmen minutes that Benjamin as a member of a committee on evaluation reported on the land on Elm and Union Streets in connection with the building of Hall and Weld. It is also known that he was the architect for a bank building built in Newport about 1816.

During this time Benjamin, besides being known as an architect, is said to have also conducted a store. Whatever his fortunes as an architect, he seems to have retained his interests in architectural book writing. His third volume was published in 1814. However, there was a long period before the appearance of his last two volumes, which were not published until 1832 and 1833.

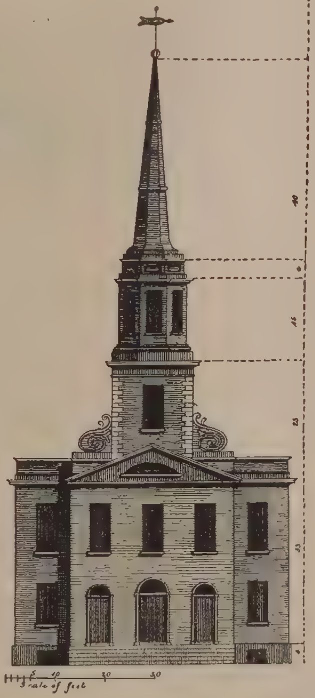
In an old Boston almanac and business directory Benjamin's name is listed continuously from 1841 to 1846, with offices in Tremont Street at the corner of Court Street. After 1846 the listing is dropped. He must have been an old gentleman by this time, and possibly retired. So far the writer has not found a record of the time or place of his death.

Benjamin has been termed the "Batty Langley of America." Although a practising architect, he was, no doubt, better known for his writings than for his executed works. As an architect he does not rank high. He probably had an extensive practice, but in minor work. There is evidence that he was, in his earlier days at least, the builder as well as the designer. Because of his training he was peculiarly fitted for this type of work, and then, as now, there were, no doubt, many clients looking for the "practical architect" rather than the strictly professional man. His first volume, "The Country Builder's Assistant," was published in Greenfield, Mass., in 1805. It contains thirty-seven copper-plate engravings, and with each a printed explanation. They show the drawings and working layout for the various mouldings, the orders, architraves for doors and windows, cornices, interior finish, chimney-pieces, doors, stairs, roof construction, and trusses. The last plates in the volume show plans and elevations for a house, and also a meeting-house. All of these are of the Colonial vintage, and are drawn in the manner of the Colonial builder.

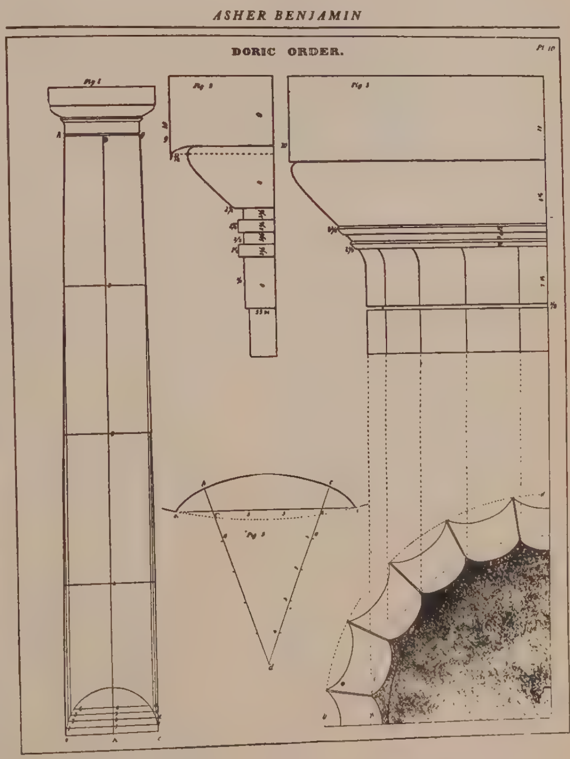
The second volume, "The American Builder's Companion," with a subtitle, "A New System of Architecture Particularly Adapted to the Present Style of Building in the United States of America," was written in association with Daniel Raynerd, architect and stucco-worker. Like the first volume, it shows a decided Co-



From Benjamin's third volume, "The Rudiments of Architecture," in the Embury reprint

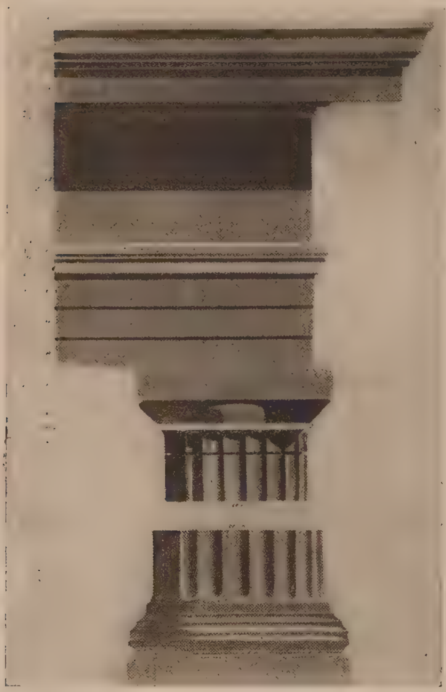


Suggested elevation for a church. Part of Plate 38 in Benjamin's second volume, "The American Builder's Companion," in the Embury reprint

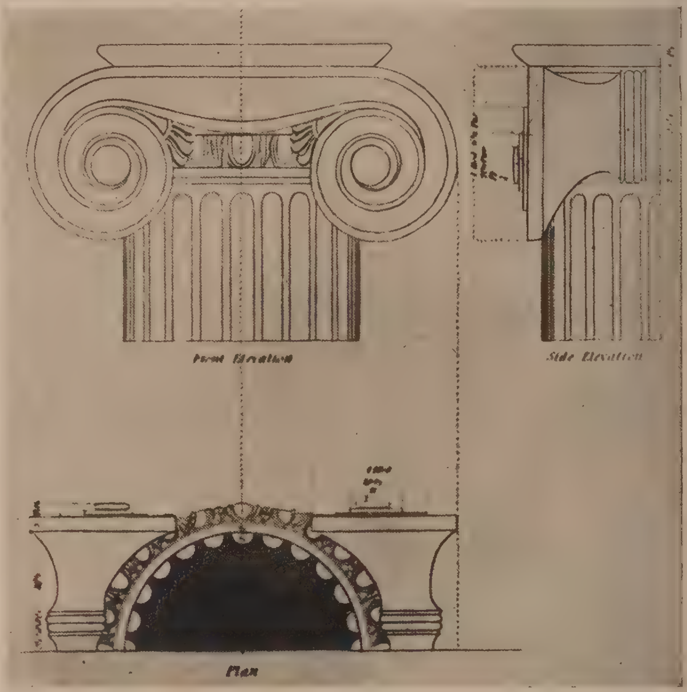


Greek Doric order, from Plate 10 of Benjamin's fifth volume, "Practice of Architecture." From a copy of the seventh edition owned by the writer lonial influence. It contains forty-four plates and covers all the exterior and interior architectural details commonly met with in the average structure. The last few plates shown are suggested designs for houses and churches. This volume was published in Boston in 1806, and seems to mark the beginning of his interest in that city, which later was to become his place of residence.

Volume III, "The Rudiments of Architecture," was published in Boston in 1814. The subtitle explains that it is a "Treatise on Practical Geometry, on Grecian and Roman Mouldings—on the Origin of Building, on the Five Orders of Architecture, on Their General and Particular Parts and Embellishments," and is illustrated with thirty-two plates. This book falls short of the first two in the quality of the details shown. The delicacy and refinement shown in the Colonial details of the first two volumes are wanting here, and instead there are the more ordinary half-Greek, half-Roman forms. The fact that the Greek forms are shown is evidence that the Greek Revival influence was making itself felt.



Greek Doric order as revised and simplified by Benjamin in Plate 7 of his "Practice of Architecture." From a copy of the seventh edition owned by the writer



Detail of the Greek Ionic order as drawn by Benjamin in Plate 17 of "Practice of Architecture." From the writer's copy

Benjamin's fourth book, "The Practical House Carpenter," published in Boston in 1832, is somewhat of a continuation of the third volume. The subtitle states that it is "A Complete Development of the Grecian Orders of Architecture, Methodized and Arranged in Such a Simple, Plain, and Comprehensive Manner as to be Easily Understood; Each Example Being Fashioned According to the Style and Practice of the Present Day . . . With All Their Details Drawn to a Large Scale." The volume is illustrated with sixty-four plates, which, like Volume III, are lacking in delicacy and refinement, and show the growing influence of the Greek Revival movement.

The fifth and last volume of the series, "Practice of Architecture," was published in Boston in 1833. Again the content is explained by the subtitle, which states that it contains "The Five Orders of Architecture, and an Additional Column and Entablature, With All Their Elements and Details Explained and Illustrated, for the Use of Carpenters and Practical Men." In this volume it is evident that Benjamin had become a confirmed Greek Revivalist. Many of the sixty plates with which it is illustrated are either inspired by or copied, with modifications, from books of measured drawings of ancient Greek monuments, or are original designs worked out in the spirit of Greek work. Because of the peculiar characteristics of many of the forms illustrated in this volume it is easy to recognise them in executed works in many places in this country. This volume, like the others, passed through many editions. The writer possesses a copy of the seventh edition, published in Boston as late as 1851.

Although Asher Benjamin may have been a man of limited abilities as an architect, it must be admitted that as a pioneer architectural book writer he had a great influence upon the builders of his time, and his works form a chapter in the story of the early development of architecture in this country.

Viterbo

By Charles Morse Stotz

WITH ILLUSTRATIONS FROM PENCIL DRAWINGS BY THE AUTHOR

WE are almost too well prepared for the famous sights of Europe. Photographs, paintings, drawings, and endless descriptions have graven on our minds from childhood those immortal buildings which are accepted as the flowers of their style: such as the Parthenon, St. Peter's, or Rheims. This second-hand enjoyment of things, however much it increases our appreciation of them, takes away something from the first sight of the originals; for among the most vivid and lasting pleasures of travelling are those we experience when we unexpectedly find ourselves face to face with some beauty which we had not known. This sort of blissful ignorance made Viterbo, for me, one of the most joyful surprises and pleasantest memories.

This impression was undoubtedly strengthened by the contrast this town made with Rome, which I had just left. Vast, inaccessible Rome is indeed a problem for the zealous architect traveller, poverty-stricken for time and not willing to forego the sight of any of its many wonders so long anticipated. But as there will probably be more who, as myself, will attempt to discover the "grandeur that was Rome" in ten days, let me whisper to them a word of proven advice. When you arrive at the end of your short time, your mind a raging kaleidoscope of grand impressions, pack up your knapsack, pick up your cane, drag your weary feet to the railroad-station, and *buy a ticket to Viterbo.*

Then as you lie back on the cushions of your compartment, running over your thoughts of Rome which are now memories, as you watch the rolling campagna gradually push the immortal Dome into the blue distance, prepare to step out of this great formal garden into the open forest, to marvel at the forgotten splendor of a solitary wild flower—for such is Viterbo.

The heart of Viterbo is the San Pellegrino quarter, a mediæval town whose mellowed stones tell the story better than words of the people who built them. With few and simple structural forms, directly employed and only slightly varied, was built this haphazard little town. Tiny streets paved with immense flags wind about between rugged massive walls, whose plainness is often relieved by massive arched openings. Occasionally a loggia is seen whose arches are supported by curious dwarfed Ionic columns, faintly recalling their venerable origin. The general character of the occasional ornament which occurs against this stern background might be described, for lack of a better term as, "archaic Renaissance," being that curious and pleasing mixture of styles so evident in Tuscany. To one who walks through the alleyways of this ancient city, recalling so vividly the thought of another and ruder age, comes the feeling that an explorer must experience when he discovers some unknown wonder. And the most precious of all his finds are the fountains which ornament the many small squares. These fountains are the glory of Viterbo. Old Italian authors referred to Viterbo as a place of "handsome fountains and beautiful women." One of the latter we are told was the cause, in the manner of Helen of Troy, of a war between Rome and Viterbo. But she is merely a memory now, whereas the fountains still remain, and seeing is indeed believing. In the design of these fountains is concentrated all that primitive awakening to beauty so evident all about them. The secret of their charm can be more easily felt than described. They have the character of the lion, which often appears in their design and which with the palm-tree is the ancient emblem of the city of Viterbo. You must go and see them to really feel their strange beauty.

There is much else of interest within the mediæval city walls of Viterbo aside from the San Pellegrino quarter, which occupies only the southern extremity of the town. There are a number of worth-while old churches and palaces, nota-

Vignola's Fountain
Piazza della Rocca
VITERBO

ble among which are the cathedral and papal palace, which stand side by side on the western slope of the town overlooking a magnificent landscape.

The evidence of later days and styles appears toward the northern end of the town. Here also is the long Corso Vittorio Emmanuele, the inevitable Main Street of every Italian town, where the entire population appears to promenade in the evening. To the solitary tourist it is an experience to mingle in this procession. Being evidently the only tourist in town at the time, I felt uncomfortably conspicuous before their undisguisedly curious glances. My trousers, extending to my shoe-tops in the American fashion, were the diversion of the town, for all good Italians wear theirs half-way to their knees. I soon became callous from the knees down. However, the amusement I afforded them was but small return for the novel pleasure in seeing not one pair but a whole town full of trousers flapping at half-mast. These walks were also a liberal education in that art of which we know so little—the art of the gesture. They talk with their hands and feet both, but when they arrive at the crisis of the discussion, they must stop and use all their energy with their arms alone in the last few dramatic gesticulations, like Mark Twain's steamboat that was forced to stop when it blew its whistle.

There is a lavish display of stone shields about the town, many bearing the emblem of the lion and the palm-tree. They are usually placed on the corners of the house without any particular architectural fitness, just as though they had had some left over. I suppose in the old days, when a stone carver was suddenly visited with a grand inspiration for a new shield, he made a sketch of it and suggested to some old residenter that just such a shield on the corner of his house opposite that decidedly inferior shield of the Bozzi family would be a convincing contrast. And presto! Another shield with which to thrill the natives and young American draftsmen who know they might wait a whole lifetime before they get a chance to design one.

One is often surprised to see spanning the narrow alleys solitary single stone arches on the top of which grass has taken root. They are probably the remnants of some old construction, the remainder of which has been taken away. If there is any thrill in witnessing the concrete evidence that man can take a number of small stones and by so placing them in the form of an arc make them stand unaided, that thrill may be had here.

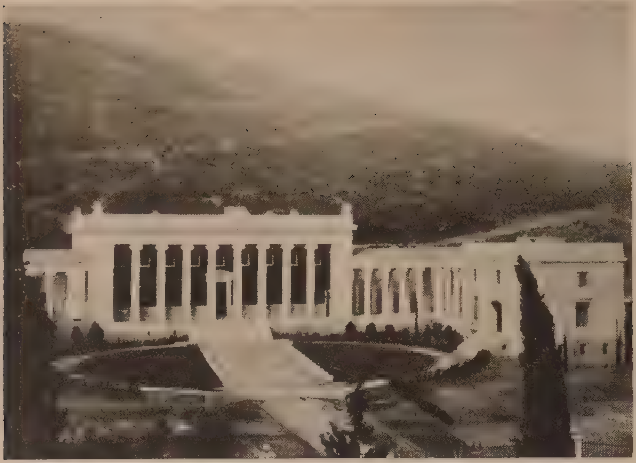
One of the architectural features which seems to have been carried to the limit of its possibilities in Viterbo is the short exterior staircase which ascends the façade of the house from the street to the first-floor level. It appears in all the stages of its development, from the most simple forms supported on plain stone walls to elaborate staircases supported on a single arch, one end of which rests on the pavement and the other either on a stone cantilevered from the wall, or on a series of arches which are sometimes supported by short columns or wall corbels.

The Cathedral
and Papal Palace
VITERBO

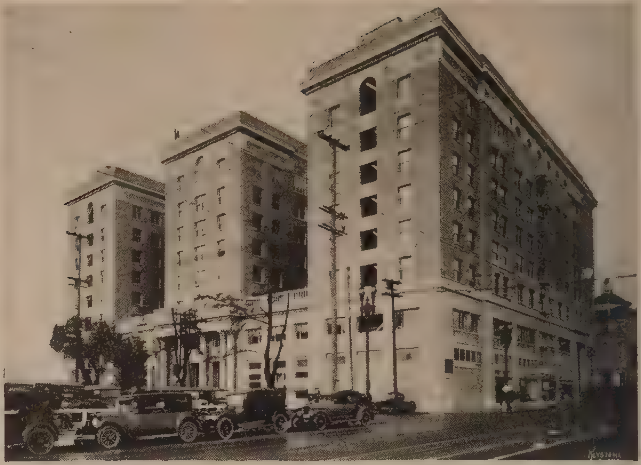
In the northern end of the town in the Piazza della Rocca is a beautiful fountain by Vignola. I thought it rather strange to find our impeccable friend here, whose rigid rules for proper architecture filled our early school-days with the comforting illusion that the secrets of perfect design had been captured at last. But with all its sublety of line and proportion, this fountain carries along with great sympathy the wild flavor of the older ones. (And after one has seen his Villa Lante just outside Viterbo he will begin to have misgivings as to whether Vignola really wrote that book himself.)

I liked Vignola's fountain so much that I decided to try a sketch of it. No sooner had I seated myself comfortably on the curbstone than the news of my intentions had spread all over town. Before the pencil was sharpened, a dozen devouring eyes were following every movement. If a country-store loafer thinks he can stare, let him try to outstare such as these. You can hear them look. The crowd was headed by a self-appointed spokesman whose first move was to produce a chair for me. With my answer "grazia" he did not know I had practically exhausted my Italian, for he showered me with remarks set off with a mild aroma of garlic during the two hours consumed by the sketch; I suppose he thought that if he would talk long enough I would eventually understand Italian. And when a dog stopped to drink out of the lower basin of the fountain, he made some remarks and gestures out of which I picked the single word "cano," which along with "agricola" forms my memory of Latin. Guessing what he meant I shook my head, at which he drove the dog away with a stone so it would not spoil my picture. Finally the two of us managed to get the sketch finished, and as I put away the things in the knapsack he insisted on introducing himself and all his fellow townsmen. I rudely interrupted him after a glance at my watch, which indicated that I had but five minutes to catch the train for Orvieto. I returned his courtesy with all the Italian I could remember on the spur of the moment, "Buon giorno" (good day), and "e pericoloso sporgersi," which I had seen printed under the train-windows directly over its English equivalent, "It is dangerous to lean out." I had hardly hoped for the hearty response that this mild remark brought forth, and as I ran (as usual) for the train, I heard, with keen satisfaction, the riotous effects of my first and last successful witticism in the Italian language.

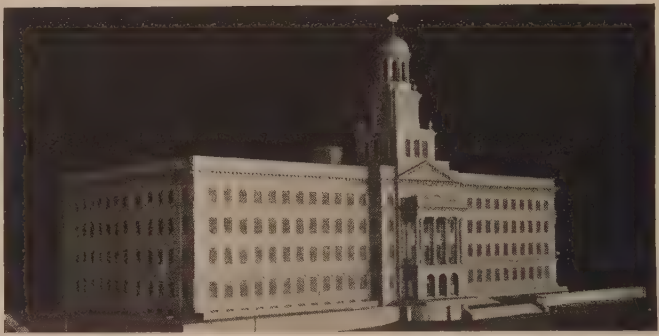
Architectural News in Photographs



A Carnegie Library overlooking the Acropolis in Athens, housing the Gennadeion Library. Both library and the marble building were given to the American School of Classical Studies

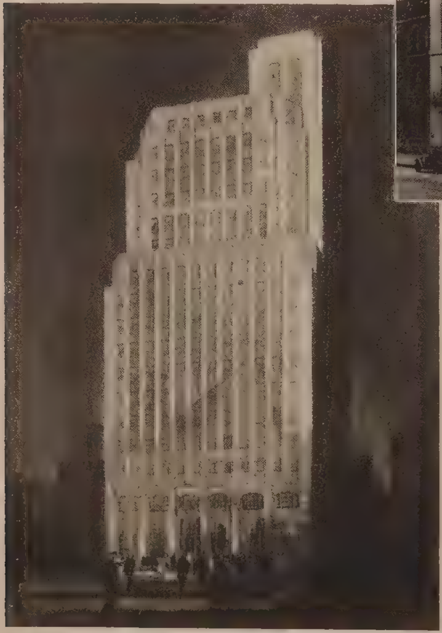


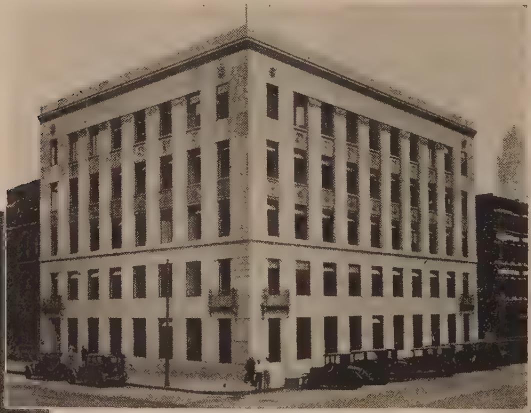
The new Los Angeles Chamber of Commerce. There are a large exhibition hall on the first floor, a banquet hall at the top, and offices in between. John C. Austin and John Parkinson, Associated Architects



Plaster model of Cram & Ferguson's Home Office Building of the Provident Mutual Life Insurance Co. of Philadelphia

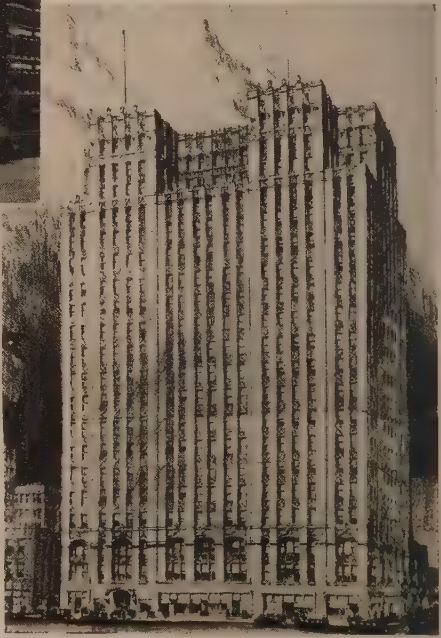
The Federal Trust Co.'s new building in Newark, N. J., which is nearing completion. Dennison & Hirons, Architects

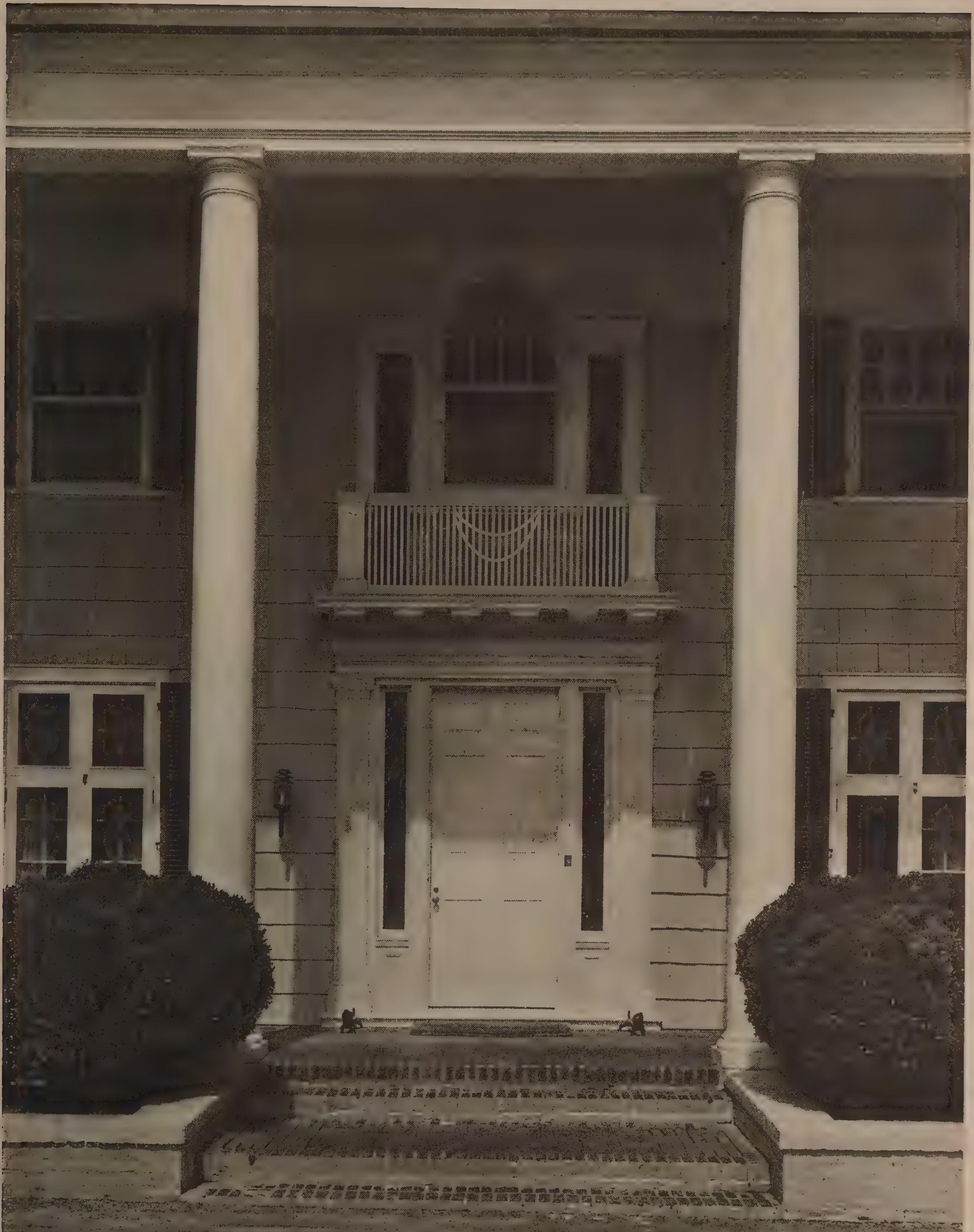




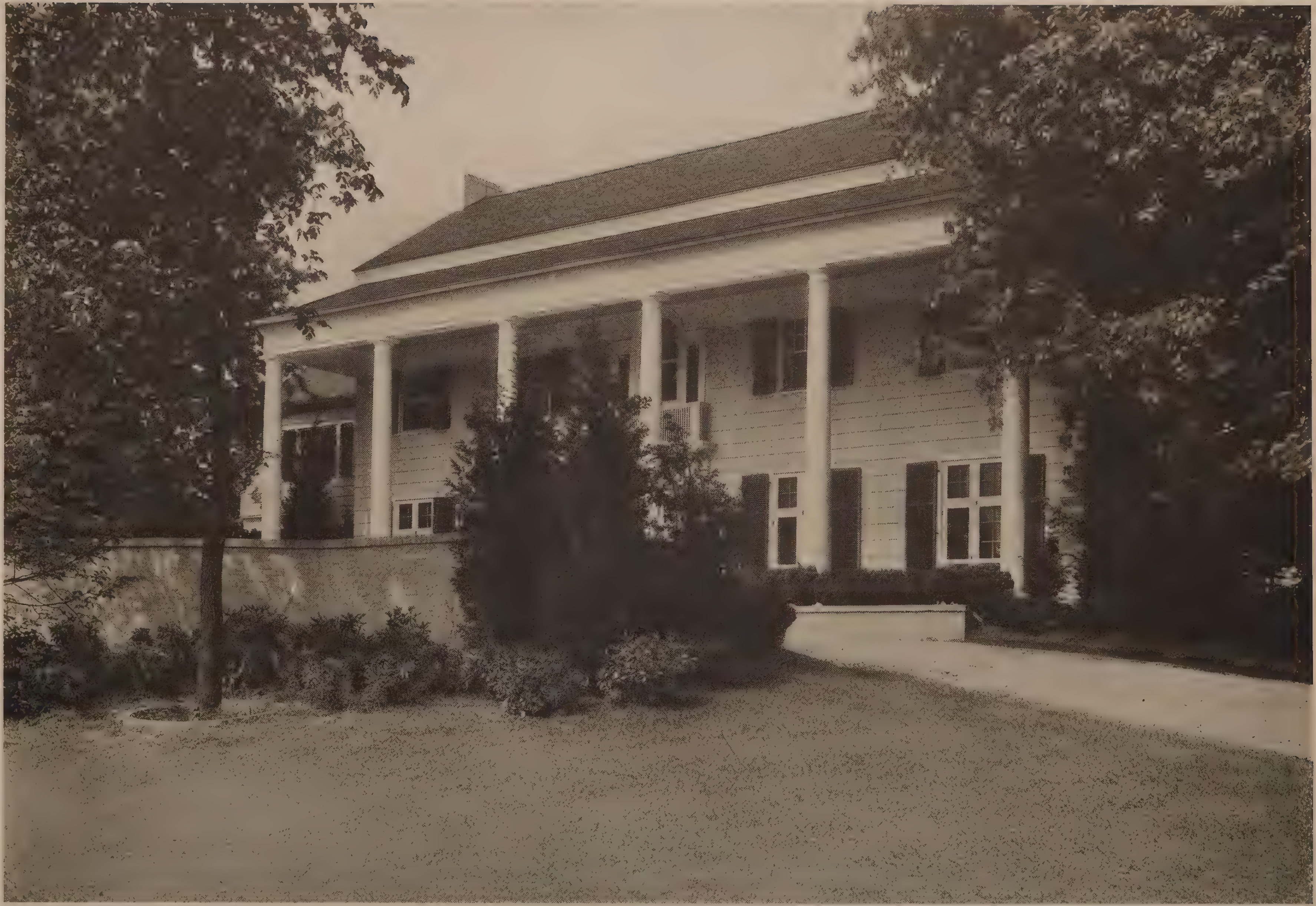
The Portland Cement Association has a new home in Chicago. Holabird & Roche, Architects

Chicago's proposed Millinery Center. Alfred S. Alschuler, Inc., Architects





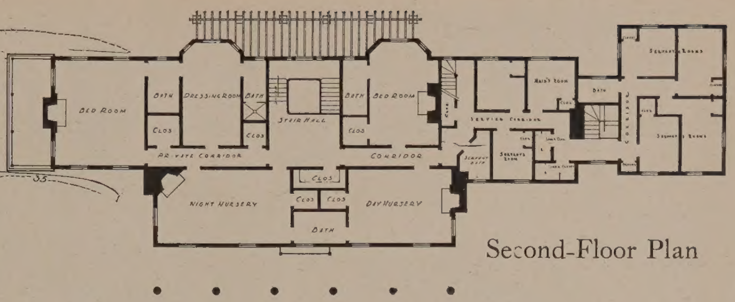
House of Philip Gossler, Wheatley Hills, Long Island OFFICE OF JOHN RUSSELL POPE, ARCHITECT



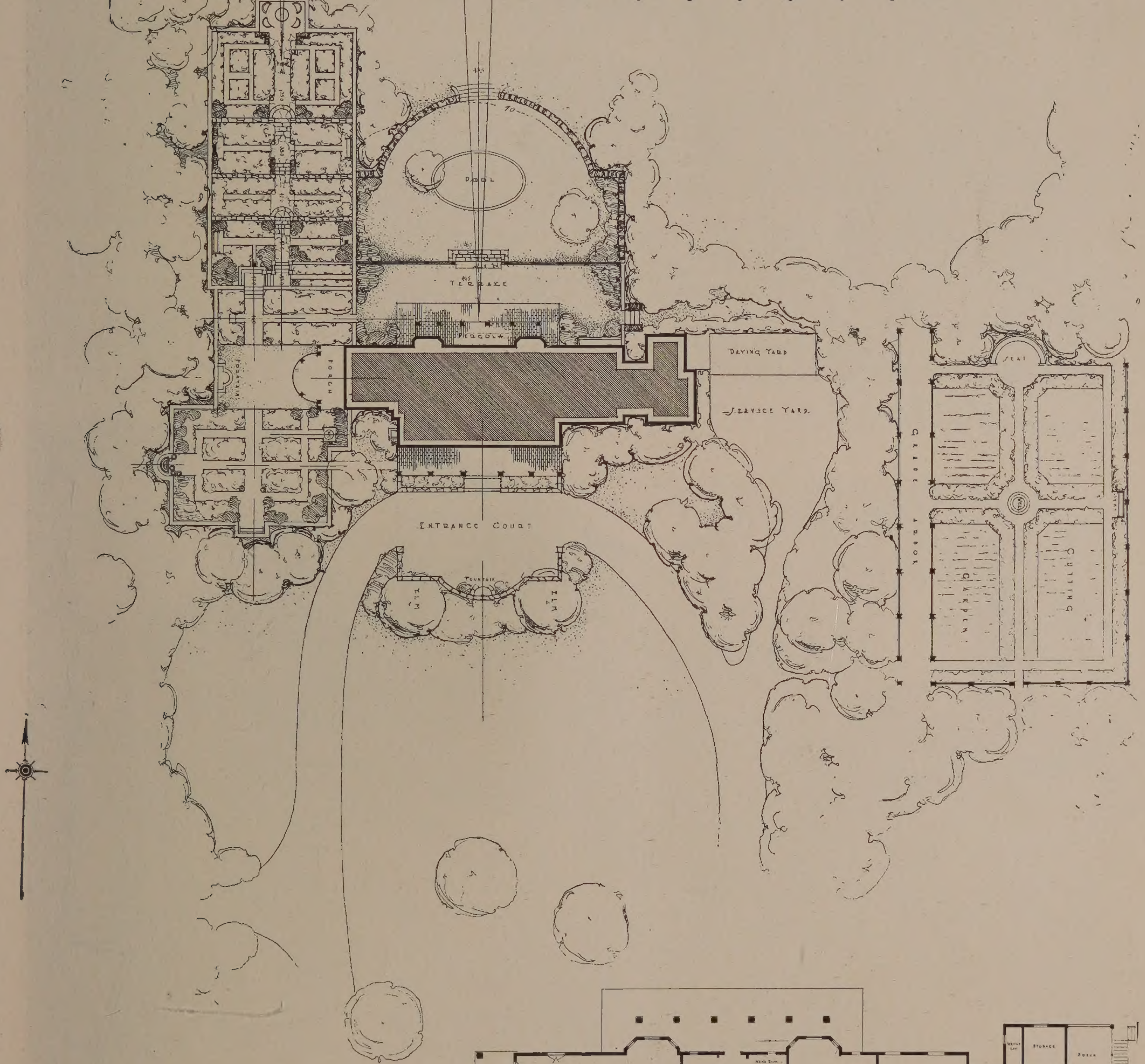
The Entrance Front

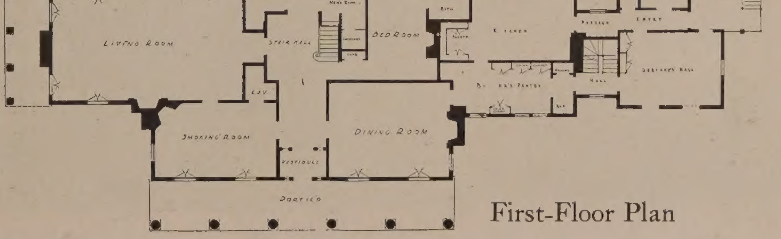
OFFICE OF JOHN RUSSELL POPE, ARCHITECT.

House of Philip Gossler, Wheatley Hills, Long Island



Second-Floor Plan

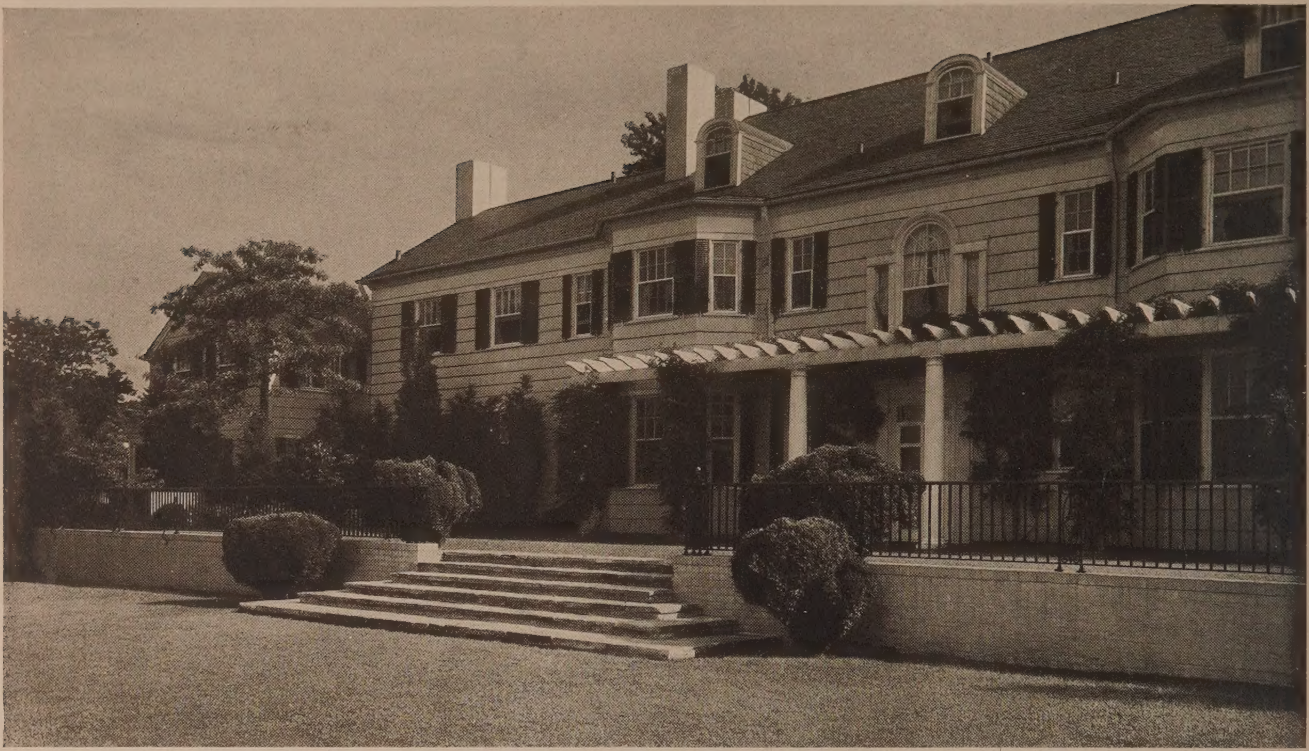


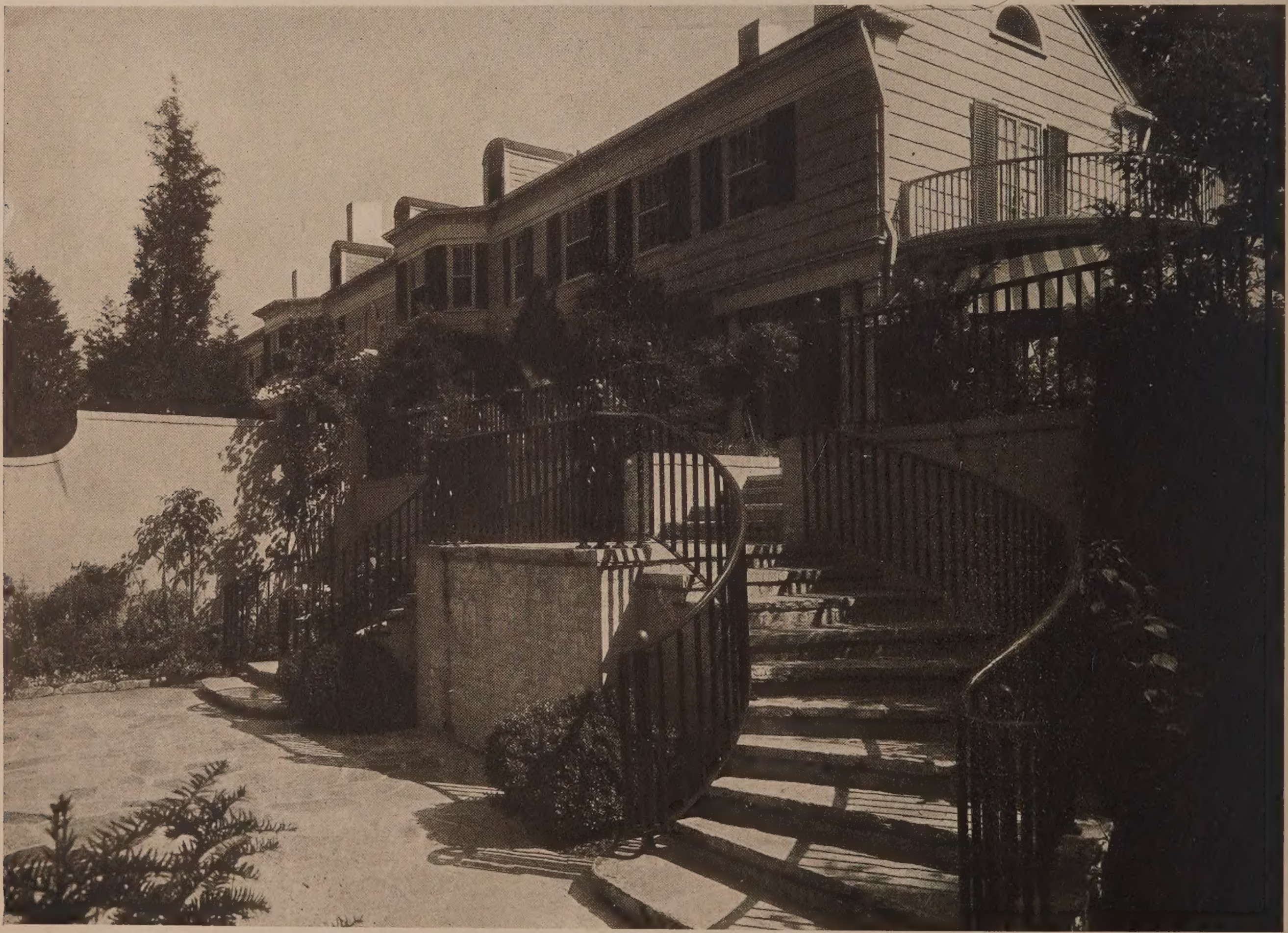


First-Floor Plan

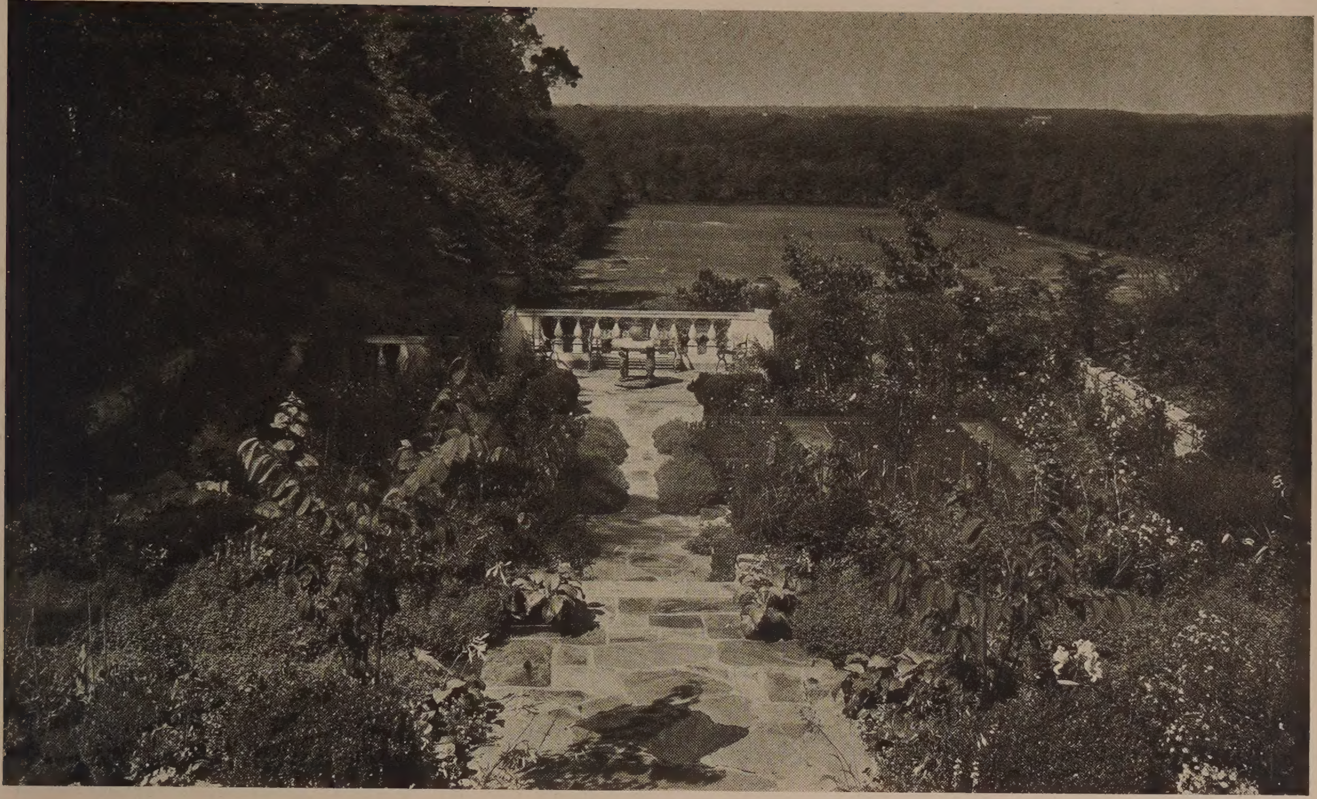
HOUSE OF PHILIP GOSSLER,
WHEATLEY HILLS, LONG ISLAND

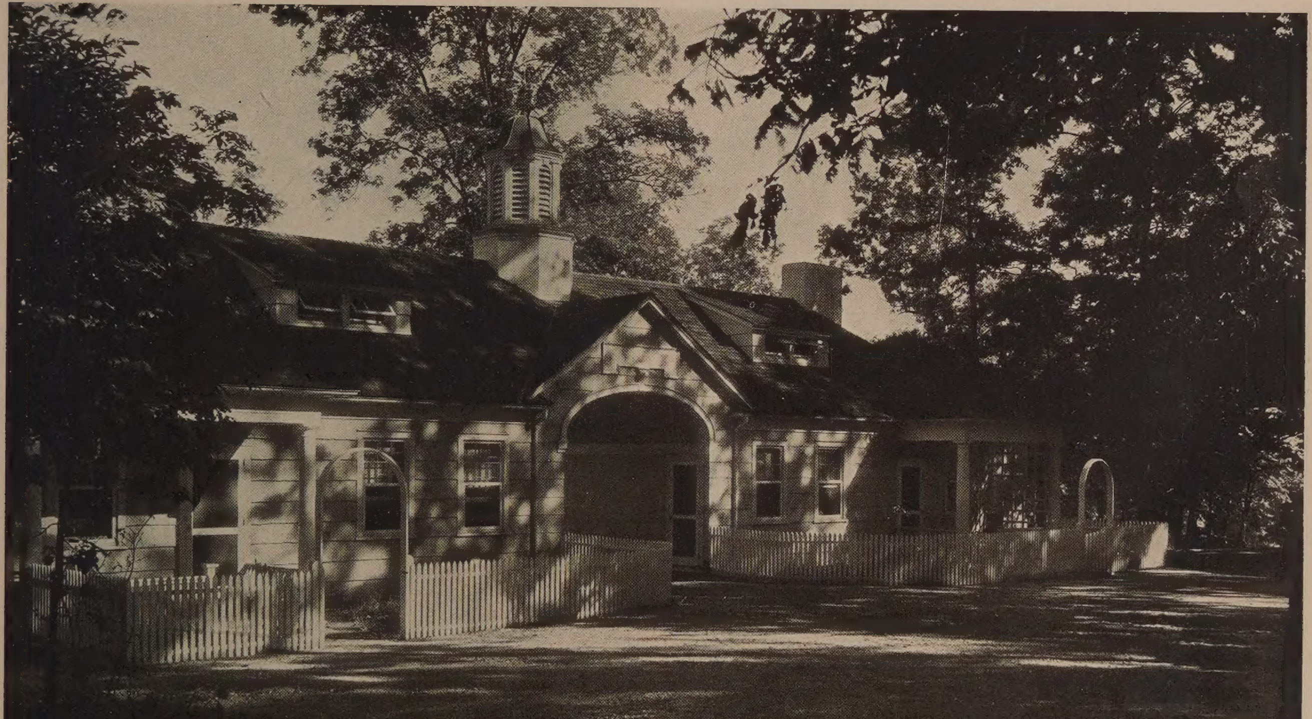
OFFICE OF JOHN RUSSELL POPE, ARCHITECT
ELLEN SHIPMAN, LANDSCAPE ARCHITECT



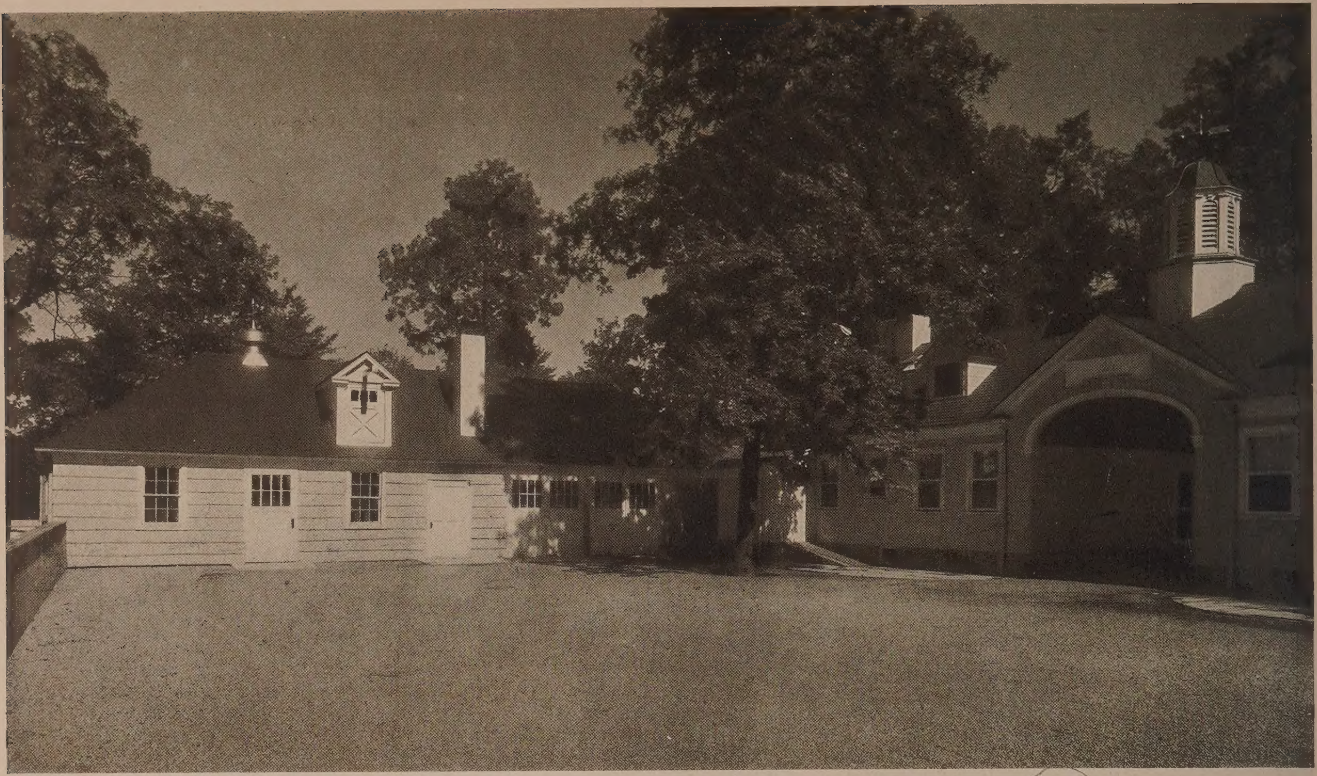


House of Philip Gossler, Wheatley Hills, Long Island — office of John Russell Pope, architect

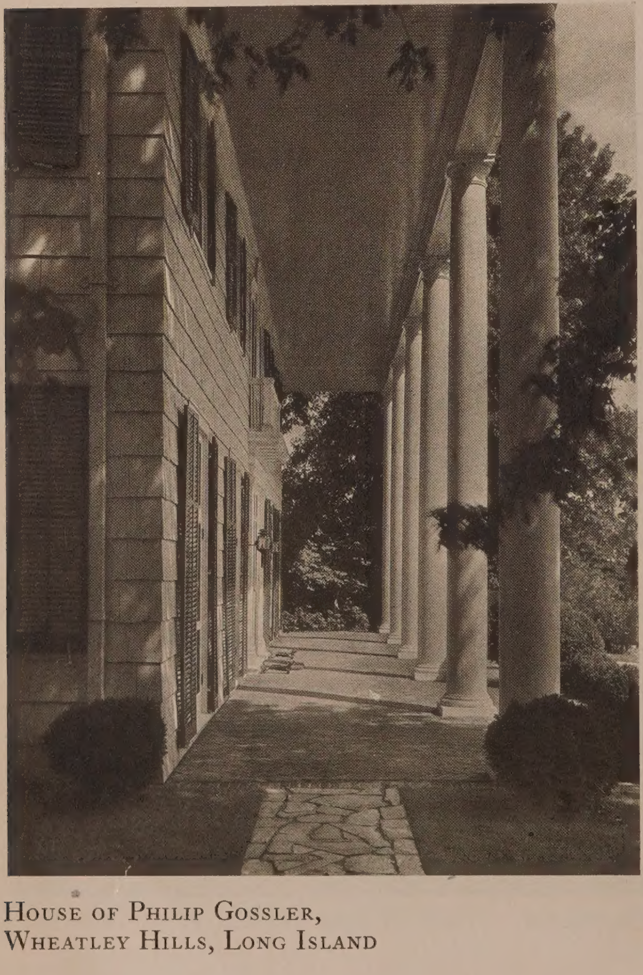


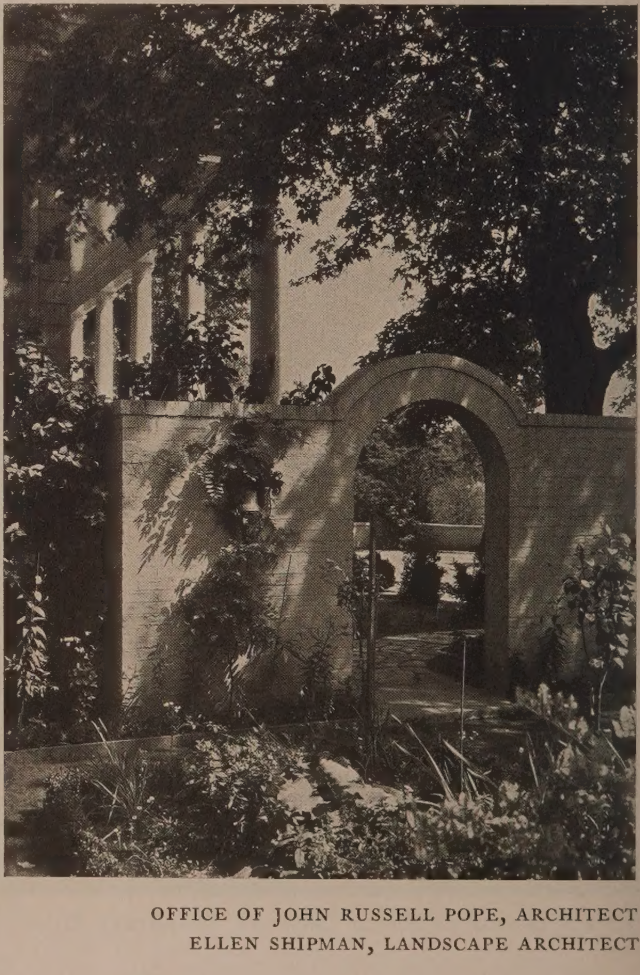


STABLE GROUP OF PHILIP GOSSLER, WHEATLEY HILLS, LONG ISLAND OFFICE OF JOHN RUSSELL POPE, ARCHITECT



Stable Group





House of Philip Gossler,
Wheatley Hills, Long Island

OFFICE OF JOHN RUSSELL POPE, ARCHITECT
ELLEN SHIPMAN, LANDSCAPE ARCHITECT